

SCHOOL ASTIC COACH

FEBRUARY 1958 • 35

BACK VIEW

of the
helmet

that's

OUT FRONT

with

america's

coaches

and players

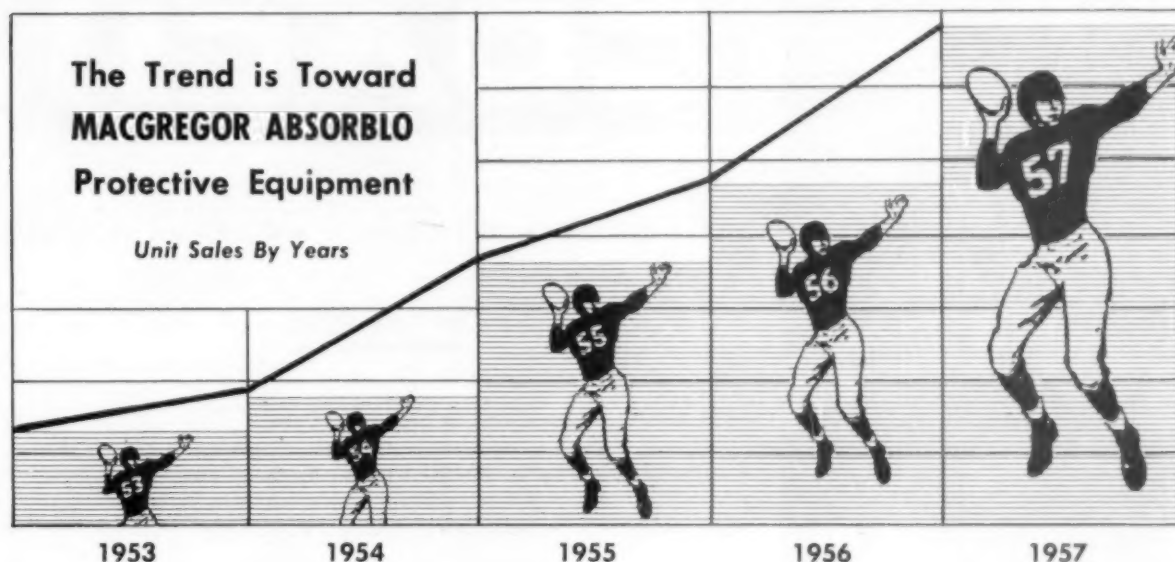


John T. RIDDell®
INCORPORATED

SPECIALISTS IN FINER ATHLETIC EQUIPMENT FOR HEAD AND FOOT

MACGREGOR ABSORBLO

The Choice of More Coaches Every Year



This sales chart gives you the story quickly. In just five years MacGregor Absorblo protective equipment has become accepted and preferred by coaches and trainers. MacGregor Absorblo is a unique slow recovery material that provides maximum shock-resistant protection. Absorblo is exceptionally lightweight and

durable. Requires minimum maintenance. Will not absorb perspiration. Easy to clean. Non-toxic. Waterproof. Mildewproof. No wonder MacGregor Absorblo has been called, "the greatest protective padding in the history of football." No wonder, either, that it has been setting new acceptance records each year!

Players Prefer Absorblo, too

Because it is lightweight and comfortable, players like Absorblo protective equipment. Absorblo not only reduces injuries, but it also gives that added feeling of confidence so important to the player.

New '58 Absorblo Line Greatest Ever

You'll find every type of protective equipment available in MacGregor's 1958 Absorblo line. Shoulder pads, kidney pads, thigh guards, bruise pads . . . there is Absorblo protective equipment for every need. Give your players the best—specify Absorblo.

Order 1958 Football Equipment Early!

MacGregor

THE MACGREGOR CO., Cincinnati 32, Ohio

"The Choice of Those Who Play the Game"

FOOTBALL • BASKETBALL • BASEBALL • GOLF • TENNIS
BADMINTON • SOFTBALL • SOCCER • VOLLEYBALL • TRACK



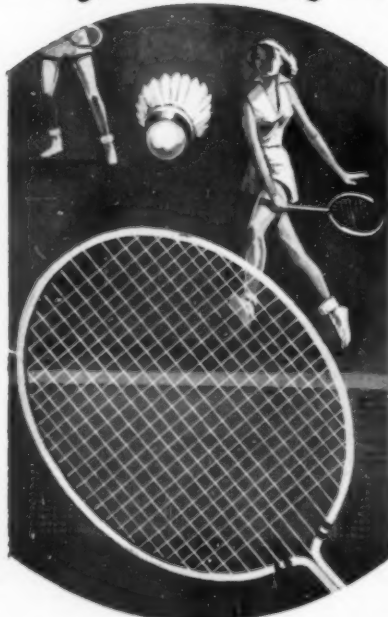
Sportcraft

SPORTS • GAMES
FOR WINTER & SPRING

TABLE TENNIS

FIELD HOCKEY

SHUFFLEBOARD



SOCCER

DECK TENNIS

BAT TENNIS

Now available—"Official Game Rules," a handy 65-page pocket-sized book containing the rules and playing suggestions on 17 popular Recreation Games . . . Free to Department heads, 25¢ to all others.

See Your Dealer

Sportcraft
SPORTS • GAMES

33 New Bridge Rd., Bergenfield, N. J.

SCHOLASTIC COACH

Reg. U. S. Pat. Off.

VOLUME 27 • NUMBER 6 • FEBRUARY 1958

IN THIS ISSUE

HERE BELOW (Riches Come to Him Who Waits)	5
A COMPLETE BASEBALL SIGNAL SYSTEM by O. H. Vogel	7
POLE VAULTING TECHNIQUES by Richard V. Ganslen	8
FORM STUDY OF EARLE POUCHER (Picture Sequence)	8-9
HIGH JUMPING, RUSSIAN STYLE by Ken Doherty	10
COMPLETE H. S. WEIGHT-TRAINING PROGRAM by Joe Marcino	12
CHECK-LIST OF OFFENSIVE BASEBALL SKILLS by Ethan Allen	16
BUILDING A CHAMPIONSHIP 880-YARD RELAY TEAM by Rich Hacker	20
SPORTSMANSHIP AS A COMPETITIVE EVENT by J. A. Martin	26
COACHES' CORNER	30
1957 ALL-AMERICAN H. S. FOOTBALL SQUAD	50
NEW BOOKS ON THE SPORT SHELF	59

Cover photo by Martin S. Dworkin

Publisher • G. HERBERT McCRACKEN
Editor • HERMAN L. MASIN
Advertising Manager • OWEN REED
Art Director • M. J. DUNTON
Art Editor • CHARLES L. HURLEY

SCHOLASTIC COACH IS ISSUED MONTHLY DURING THE ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) BY SCHOLASTIC MAGAZINES, INC., PUBLISHERS OF SCHOLASTIC MAGAZINES FOR HIGH SCHOOL STUDENTS.

ADDRESS EDITORIAL AND ADVERTISING COMMUNICATIONS AND CORRESPONDENCE CONCERNING SUBSCRIPTIONS AND CIRCULATION TO SCHOLASTIC COACH, 33 WEST 42 ST., NEW YORK 36, N. Y.

SUBSCRIPTION FOR THE UNITED STATES, \$2.75 A YEAR, CANADA, \$3. FOREIGN, \$3.25. BACK ISSUES: CURRENT VOLUME, 35¢; PREVIOUS VOLUMES, 50¢.

THE ENTIRE CONTENTS OF SCHOLASTIC COACH COPYRIGHT, 1958, BY SCHOLASTIC MAGAZINES, INC.

ACCEPTED AS CONTROLLED CIRCULATION PUBLICATION AT NEW YORK, N. Y. SCHOLASTIC COACH IS A MEMBER OF THE BUSINESS PUBLICATIONS AUDIT, A BUREAU FOR EXAMINING AND AUDITING CIRCULATION FIGURES FOR THE PROTECTION OF ADVERTISERS. BPA STATEMENTS OF SCHOLASTIC COACH CIRCULATION SUPPLIED ON REQUEST.



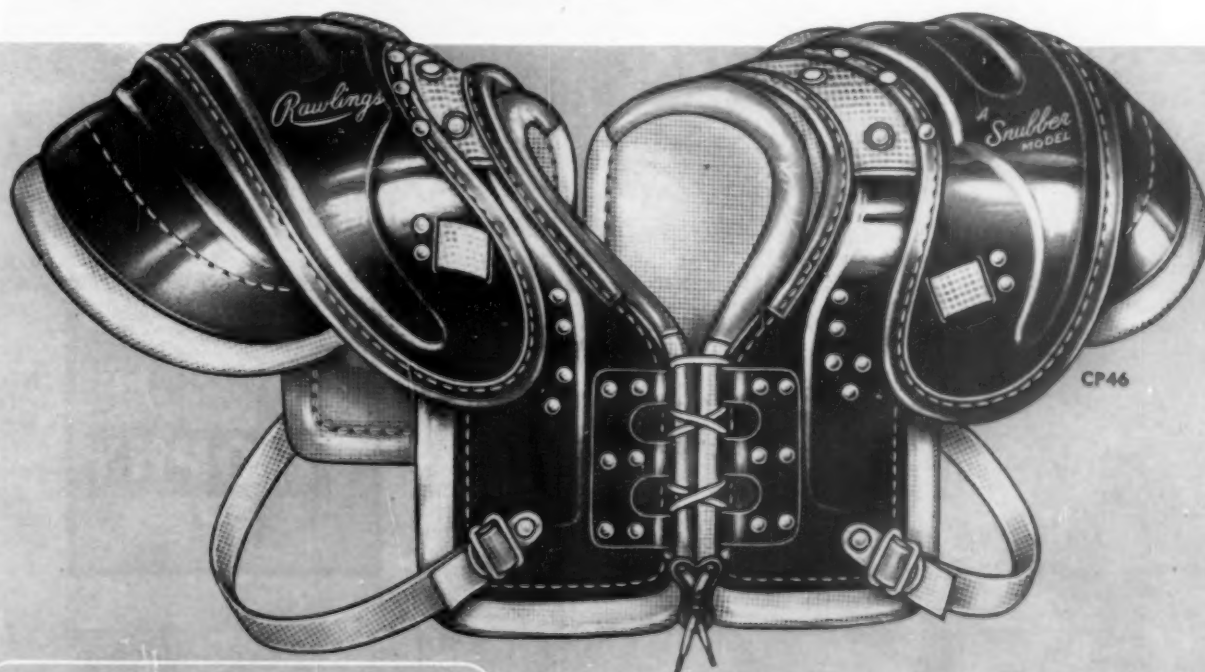
NEW SUPER-SAFETY FEATURES IN RAWLINGS '58 SHOULDER CUSHIONS!

Completely re-designed, Rawlings new Shoulder Cushions introduce the greatest combination of safety-engineered advancements in years. Arches have been made longer and wider for more protection to the lower chest... extra cushioning has been added around the collarbone area. Bigger caps have deeper padding to protect the upper arm, guard against shoulder separation. Cap hinges have been lengthened, and angle of attachment changed for better frontal protection. Flaps have been streamlined to allow unrestricted arm freedom. In fact, nothing has been overlooked to insure the greatest possible protection.

Added to these features are the famous "Safety Snubber", Super Aire-Guard Vinyl, 100% Nylon slip-proof covering, "Lock-Tite" stitching, quick-adjusting "D-Anchor" body straps for individualized fit—and a dozen other Rawlings exclusives. No question about it...

Rawlings new Shoulder Cushions top the field in protection, comfort and durability!

No Shoulder Pad Is Complete Without A Rawlings Patented Snubber!



Equipped with
the *Original*

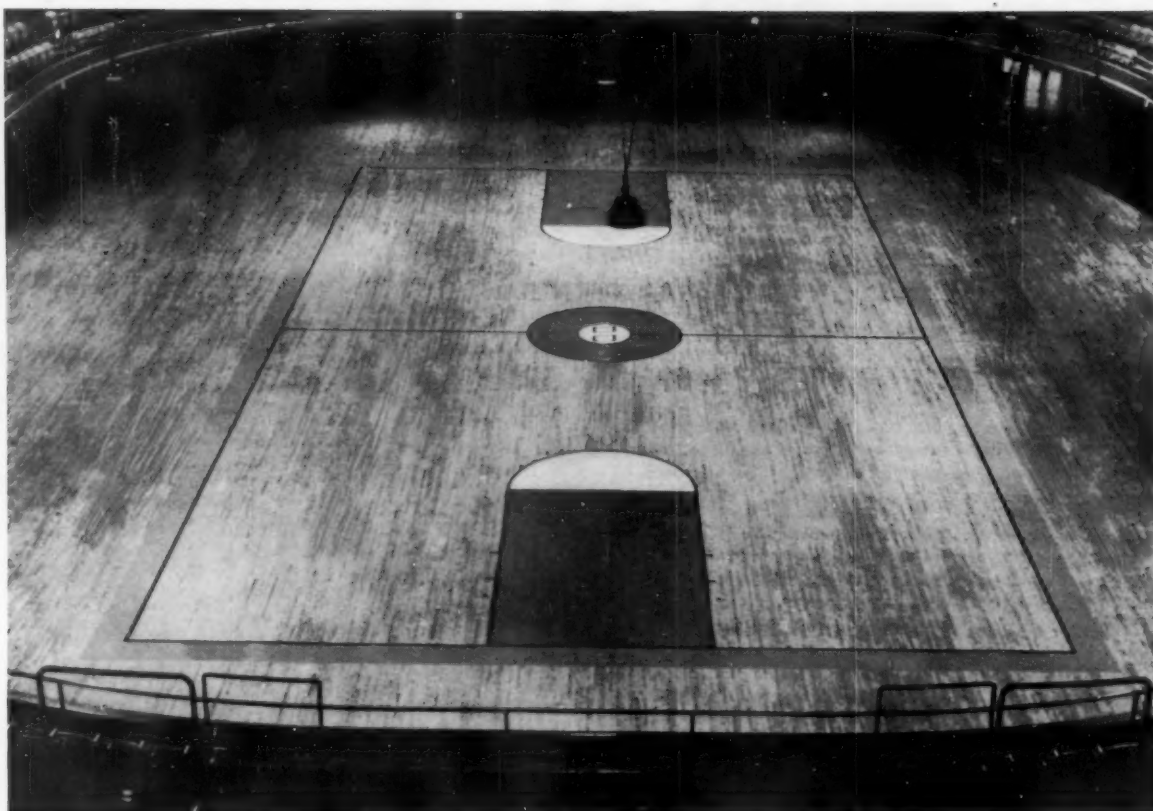
**SAFETY
SNUBBER**

Rawlings

FOR 60 YEARS

"The Finest In The Field!"

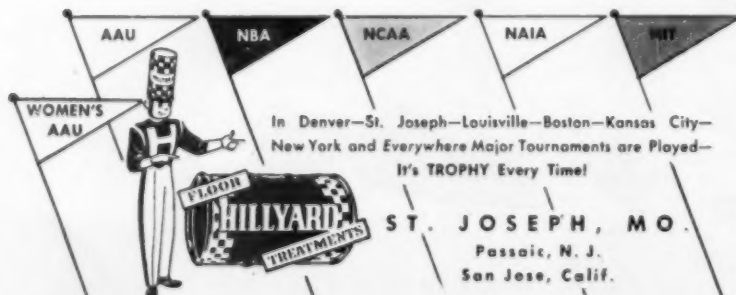
RAWLINGS SPORTING GOODS CO. ST. LOUIS • NEW YORK • LOS ANGELES • DALLAS • CHICAGO



1958's NATIONAL A. A. U. CHAMPIONS will win their Title on this *Hillyard* TROPHY Floor

Denver Auditorium Arena . . . the home of the National AAU Basketball Tournament. In preparation for the 1958 play-offs, this beautiful floor has just been completely re-finished. The new finish chosen for America's outstanding AAU teams is the overwhelming favorite of coaches, players, spectators — Hillyard TROPHY "Finish for Champions" . . .

The Lightest, Smoothest, Longest-wearing, No-Glare, Non-Skid Finish, Developed for the Nation's Finest Gymnasiums.



MAIL COUPON TODAY!

HILLYARD St. Joseph, Mo. Dept. P-6

Please have the Hillyard "Maintainer®" show me how easily I can have a TROPHY Championship Gym Floor—and how this fine finish will save labor, cut costs in our regular maintenance program.

Name

Institution

Address

City State



Riches come to him who weights

CHIVALRY is far, far from dead on the gridiron. Football fans attending the Boston U.-Connecticut frosh game last season witnessed one of the finest pieces of sportsmanship ever seen on an athletic field.

Racing downfield as a blocker, B. U.'s center, Tom Salvo, noticed Charlie Delborn, UConn end, moaning on the ground with a broken leg. Salvo immediately left the play. He kneeled over Delborn, held his shoulders, and shouted, "Don't move! Don't move!"

He shielded him with his body until the play ended. Then he called to the sidelines for help.

THEN there's Charlie Brueckman, Pittsburgh's great center, who's All-American in more ways than one. After Hurricane Audrey lashed the State of Louisiana, causing terrible damage, Charley took up a collection from the Pitt players and mailed it to the New Orleans Chapter of the Red Cross, with this note:

"The members of the 1957 football team have asked me to make this contribution to the disaster fund. Some of us played in the Sugar Bowl two seasons ago and will always remember the wonderful time we had in your city. The people of New Orleans and Louisiana were wonderful to us, and we do hope our little contribution will help in some way."

WAYWARD BUSS CO.: Our strait-laced British cousins are in a beastly dither these days. It seems that their soccer players have taken to kissing each other in public!

"These ideas have crept in since we began playing continental teams," sobs soccer-nabob Sir Stanley Ross, manfully trying to stiffen a quivering upper lip. "That is not the British method."

Dash it, no! It certainly isn't. Now, having a spot of tea after a spirited

Indian leg wrestle, or patting a chap on the forelock after a spirited round of croquet—that's British. But osculating a chap in public . . . good heaven's, its uncouth!

That's what you get from playing footsie with furriners. Hurrah for Roger Bannister!

UPON turning our blue pencil loose on Dick Ganslen's wonderful manuscript (see page 8), we stumbled over a rough spot or two and, to get everything crystal-clear, we itemized the typos and dispatched them to Fayetteville, Ark.

Here's the way Mr. Pole Vault answered us:

"Since writing is an incidental occupation with me, I'm forced to do my own typing and, let's face it, I can barely clear 10' in the hunt-and-peck division. Ergo all those typographical errors.

"Please remember that I meet 237 students every 36 hours, have four children to keep happy, am an active reserve officer, organized and direct the only Cub Scout Pack in the city, coach (voluntarily) some of the budding Arkansas athletes, and build hot-rod cars in my 'leisure' time.

"In short, I refuse to develop any ulcers over my editorial mishaps."

A LOT of suet has flowed under the bridge since our first article on weight training muscled into print in December of 1947. Up until then, weight training had been confused with weight lifting—the plaything of the professional narcissists—with the result that most people thought of it as a physical malfeasance which bound the muscles and constricted the coordination.

It wasn't until the great shot putters, Otis Chandler and Stan Lampert, revealed the awesome potential of weight training that we began seriously exploring it.

The clincher was provided by Irv Mondschein, the national de-

cathlon champion. He told us that he owed all his success to weight training! By increasing the strength of his muscles, he said, he also increased their function—with remarkable benefit to his agility and coordination.

So when the two distinguished physical educators, Laurence Morehouse and Philip Rasch, pressed into view with a manuscript on the subject, we welcomed them (and it) with open arms.

That was more than a decade ago. Since then, weight training has become a solidly established adjunct of both the athlete's training and the physical education program.

And with just cause. School men have discovered that an intelligently designed program of progressive resistive exercises can achieve miracles in the way of physical development—with relatively little investment in money, space, and time.

Practically all our outstanding weight men in track—including Parry O'Brien, Bob Backus, Steve Seymour, Fortune Gordien, and Bill Neider—as well as such athletes as Bob Richards, Don Bowden and Mal Whitfield, attribute much of their championship success to training with weights.

Swimmers (Dick Cleveland and Al Wiggins), golfers (Frank Stranahan and Paul Runyon), football players (Alan Ameche, Steve Van Buren, and Stan Jones), and baseball players (Ralph Kiner, Bob Feller, and Jackie Jensen), all have exploded the old-fashioned bogey that lifting exercises and functional muscle don't mix.

Several recent newspaper items lend further substantiality to the weight training story. Queried about the surprise showing of his Maryland basketball team this season, Coach Bud Millikan attributed it largely to—weight training! It seems that the Terrapin coach exposed his squad to weight exercises from the

(Continued on page 62)

BUILD BETTER TEAMS FASTER!

Crowther Sleds are acclaimed by top ranking coaches as the greatest shortcut to good timing and hard hitting.

Designed and built by RAE CROWTHER, outstanding line coach for over 25 years, inventor of the game's finest quality, most dependable practice machines.

CROWTHER 2-MAN MACHINE

CHARGER • BLOCKER • TACKLER



- The only device that offers resistance and conditions comparable to those of an actual game. It actually fights back. Pads are shaped like a defensive player and present ideal target. The easiest, safest way to teach FIERCE CHARGING . . . HARD BLOCKING . . . SURE TACKLING.

- CORRECTS FAULTY PLAYING. If the player doesn't hit it just right, the reaction of the machine will make him realize his mistake.

- The long leaf spring action makes the difference.

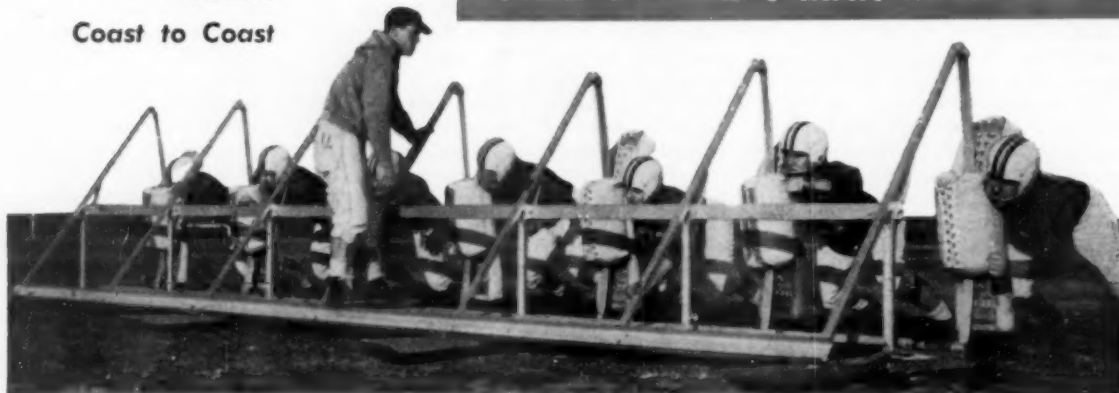
- A GUARANTEED TIME SAVER for group work in the development of football techniques.

Endorsed by

Coaches

Coast to Coast

ALL-STEEL 7-MAN MACHINE



PAY PLAN

NO DOWN PAYMENT

UP TO 3 YEARS TO PAY

NO CARRYING CHARGES

Best Way to Teach

- Hand Shiver
- Shoulder Charge
- Team Defense
- Slant Charging
- Looping
- Stunting
- Roll Out
- Team Pursuit
- Balance and Agility
- Hitting Out on the Count

This new 7-MAN CHARGER makes the job of coaching still easier. It toughens and conditions your players for scrimmage, develops their form and power as nothing else can. Look at these features.

—long leaf spring action gives almost human resistance

—pads are shaped like a defensive player

—quality construction throughout

—weight 1100 lbs., all steel, built to last.

WRITE DIRECT OR USE MASTER COUPON ON PAGE 87 FOR COMPLETE DETAILS

RAE CROWTHER CO., ARDMORE, PENNSYLVANIA

Simple but graphic "sign language" for both the defense and offense

THE essential form of communication on the baseball field is a signal system between players and/or between players and coaches. No team can function smoothly or at full efficiency without a thorough understanding and ready implementation of this secret "sign language."

On defense, it's necessary to work out an effective system between catcher and pitcher that's also understood by all the other defensive players. The catcher is almost always responsible for the signs. In rare cases, however, where the pitcher is far more experienced than his receiver, the signals may be flashed from the rubber. In such instances, the catcher must then relay the message to the other fielders.

This can be a big help. For, whenever the fielder knows what the next pitch will be and where it will be delivered, he can get a good jump by leaning or even taking a preliminary step in the direction the ball will probably be hit.

Generally speaking, the signals should be simple and clear to assure easy "reading" and, at the same time, be given in a manner that precludes their being picked up by the opposition.

The two accepted methods are the inside and outside systems. The inside method—the more popular of the two—is given with the right

hand resting in the crotch; while the outside method is given either with the right hand or gloved hand outside the crotch, or by a movement of the head.

Regardless of which method is used, the catcher should always assume an initial squat position in his box, feet comfortably spread, with the knees apart. The left forearm should rest on the left thigh, with the glove extended just beyond the knee, and the right hand should be placed well in the crotch. This helps eliminate the possibility of the opposition picking up any movement which might tip off the signal.

When an outside method is used, a dummy inside signal is given previous to or at the same time the outside signal is given. This will prevent the opponents from knowing which method is being used.

INSIDE SIGNALS

For illustration purposes, a series of four signals will be used: for the fast ball, breaking pitch, change of pace, and pitch-out.

In most cases, the breaking-pitch signal can be used for either a curve or slider, with the option left to the pitcher. If the pitcher can throw two sharply different breaking pitches, a signal can be worked out for each. This, however, is a rarity.

Digit or Single Series. As the initial squat position is taken, the catcher places the clenched right hand well in the crotch. For a fast ball, the first finger is pointed

downward; for a breaking pitch, the first two fingers; for a change-up, the first three fingers; and for a pitch-out, four fingers.

When both catcher and pitcher are experienced, the change or let-up pitch can be thrown on the fast ball signal or the slow curve on the curve ball signal—the pitcher delivering the pitch at his discretion.

On a pitch-out, the catcher should also give an outside signal which all fielders can see. This will alert them to the play and enable them to leave their positions with the pitch — to back up a throw, cover the base, go to the out-off position, or do whatever their assignment calls for on that particular play.

Whenever the outfielders have difficulty seeing an inside signal, the shortstop and second baseman should relay the message. As soon as the catcher gives the signal, they place their right hand behind their back, approximately belt high, and repeat the signal — immediately thereafter assuming their ready-to-field position.

If the pitcher has good control, the catcher can give an outside signal for high or low pitches. When necessary to relay these pitches, the shortstop and second baseman place the right hand just above the belt for high pitches, and just below for low pitches.

Sometimes either the third baseman or first baseman may not see the signal from the catcher. They can be alerted to the pitch by a word-of-mouth signal from the shortstop or second baseman, such as "heads up," "let's go," calling the outs, etc. This would indicate a fast

(Continued on page 44)

A COMPLETE BASEBALL SIGNAL SYSTEM

Word-of-mouth infield signal



**FORM STUDY OF EARLE POUCHER
CLEARING 14-8 $\frac{3}{4}$**

Courtesy Miami Daily News

POLE VAULTING TECHNIQUES

By RICHARD V. GANSLER
University of Arkansas

*The thoughts of ten of the country's leading
vaulter on the vital facets of the art, as
surveyed by the world's No. 1 vaulting authority*

FOLLOWING the trend in nearly all the track and field events, pole vaulting performance has soared sharply in recent years. Yet, strange as it may seem, nothing new has evolved in technique. The fundamental skills have remained pretty constant.

Nor can the present-day success be attributed to the new poles or improvements in facilities. It's quite possible that our top-notch jumpers could readily duplicate their best mark with a bamboo pole.

No boy should be embarrassed because of his inability to purchase a fabricated pole. A good bamboo pole will prove quite adequate during the early years of competition.

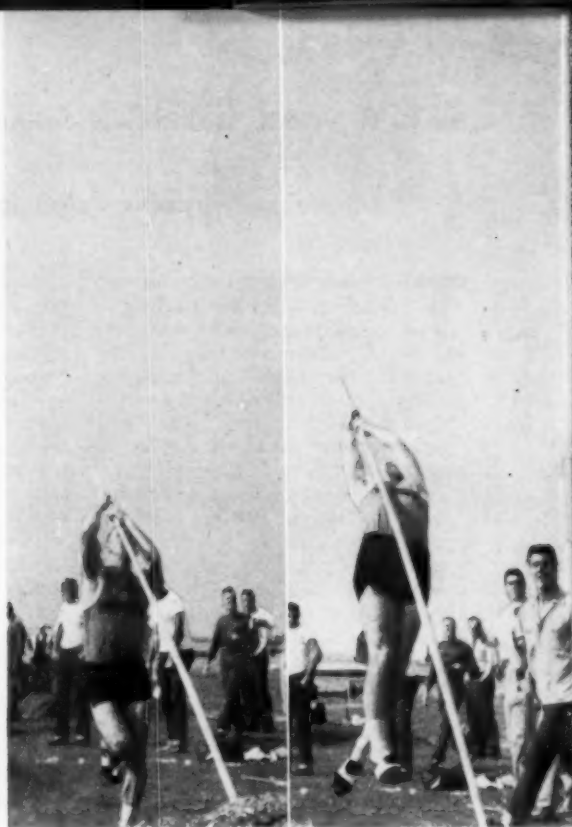
The principal advantage of the fabricated pole lies in its durability and uniformity of size and spring. In shipping poles from place to place, this of course is of tremendous advantage.

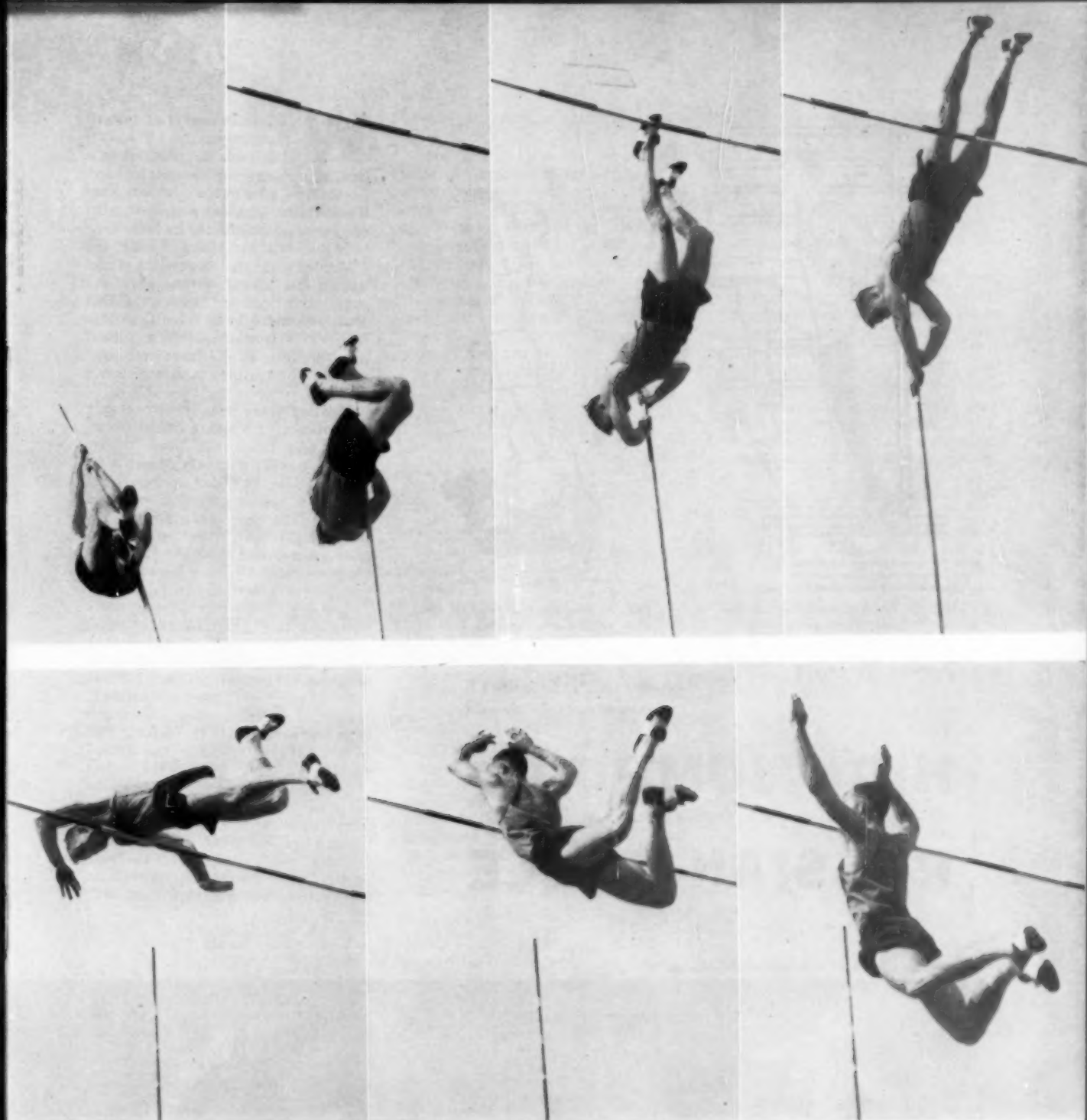
The improved level of performance is simply an evolutionary trend, long delayed, but anticipated for

many years. Our pole vaulters have become increasingly articulate about their event and much more conscious of the necessity for continuous study both of their own form and that of their competitors.

To ascertain their thoughts on the vital facets of the art, the author undertook an intensive questionnaire-survey of ten of the country's leading vaulters:

- Don Bragg, former collegiate world record holder.
- Don Cooper, first collegian to





better 15 feet outdoors.

- Jerry Welbourne, former Big Ten champion and one of the handful of athletes to clear the magic 15-foot mark.

- George Mattos, a member of both the 1952 and 1956 Olympic teams.

- Bob Gutowski, the world record holder at 15-9 $\frac{3}{4}$.

- Don Laz, former collegiate record holder and first collegian to exceed 15 feet.

- Earle Poucher, the world's

greatest "little" vaulter, who has cleared 14-10 though just 5 feet 7 inches.

- Ron Morris, a 15-foot vaulter from U.S.C.

- Walt Levack, another talented little man (5-9), who has bettered 14-9.

- Jim Graham, a great student of modern vaulting form who was a member of the 1956 Olympic Team.

1. Which length of pole do you prefer?

Bragg, Cooper, Laz, Gutowski, and

Graham all favor the 16-foot metal pole, while Welbourne and Poucher both employ 14-foot metal poles. Bragg tried 12 different poles during the 1956 season. He said he'd like a well-balanced 16'6" or 16'9" pole.

2. What is your hand-grip from the bottom end of the pole to the top of your right hand? (The effective grip will be 8" less than this.) With what grip do you feel most confident? What grip did you use on your best jump to date?

(Continued on page 34)

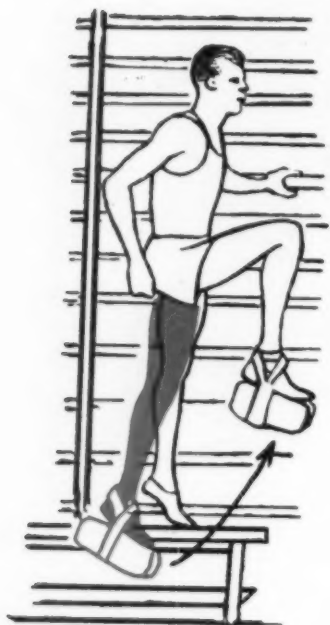


FIG. 1: Weight training of the lead leg muscles.



FIG. 2: Weight training of the take-off muscles.

By **KEN DOHERTY**
University of Pennsylvania

HIGH JUMPING RUSSIAN STYLE

WHAT is behind the tremendous improvement in Russian high jumping, as evidenced not only by Kashkarov and Stepanov—who have already bettered 7 feet—but by a growing list of others over 6 feet 6 inches?

The tendency is to brush the question aside by protesting their use of an illegal springboard instead of an ordinary track shoe. But are there more basic facts than this and, like the earth satellite, should they induce us to re-assess our methods of training and our techniques?

For two years now, the writer has been receiving Russian literature on track and field, has been corresponding with a sports scientist in the U.S.S.R., and has spoken with European coaches who've watched the Russians train and high jump. It seems clear that, quite apart from the controversial shoe, the Russians' success is based upon a broad, long-range approach to the problem.

Space permits only a brief summary of this planning. First and foremost, all observers agree that Russia has developed an extensive program of sports participation not only throughout her educational system, as in the United States, but even more markedly throughout her industrial system, as in the European countries.

In other words, they start sports early as we do but continue competition for an additional 8 to 10 years beyond the norm for our amateur athletes. As an incentive to such participation, success in sports has been made most worthwhile.

Illustrations from "Track and Field Movies"



FIG. 4: Body angle at the beginning of the take-off. Mechanical efficiency increases from A to B to C.

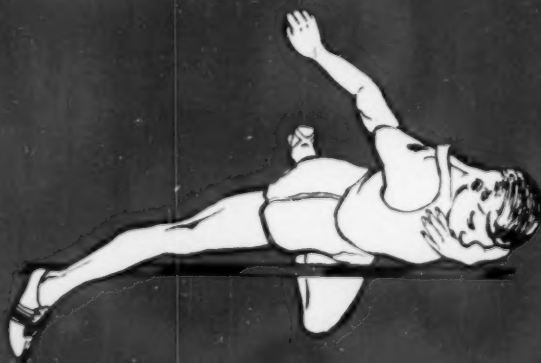


FIG. 5: Charlie Demas over the bar at 7' 1/2\"/>

Russia claims she has no professional athletes. Certainly, there are no admission charges at any Russian sports competitions, no gate receipts; therefore, they claim, there's no reason to pay either scholarships or pay checks to star performers. But no one can deny that there are great opportunities for social recognition and personal advancement through sports.

The slogan of "Fitness for work and defense and service to country" can be found in the preface, text,

working to surpass their performances.

Secondly, Russia has established a broad program of sports research as a basis for improved methods and techniques. Suffice to say that the Moscow Institute for Research in Sports and Physical Culture celebrated its 25th anniversary last year, that it's but one of several such Institutes in Russia, and that their faculties consist of physiologists, psychologists, kinesiologists, technicians, and sports coaches working

sian Olympic team will disclose their belief in the value of strength. **Figs. 1 and 2** are taken directly from Russian sports journals. They show not merely that weight training is advocated for high jumpers, but that they've devised inexpensive heavy weights (sandbags) which can be made by anyone. Weight training isn't exclusively for those with enough money to buy barbells.

Fourthly, Russian techniques, as demonstrated in the high jump, are based upon sound mechanical principles. This is the major point of this article.

Observers at Melbourne or of the official Olympic movie film noted that Russian jumpers were running comparatively fast, much faster than the most phenomenal high jumper of all time, Charlie Dumas of the U. S.

Running fast is mechanically sound, even though Dumas almost walks up to the bar. But when you run fast, you have a tendency to lose control at the take-off, to give way at the knees or to dive at the bar. Some means must be learned or acquired by which to utilize the horizontal inertia of the body and convert it into the air vertically.

For 50 years, American jumpers have been trying to learn a proper method. Some have dropped lower during the last two steps and at the take-off; some have increased the angle of the body to the ground (**Fig. 3**), and some have discovered that lowering the heel of the foot rather than the sole was of definite value.

(Continued on page 40)

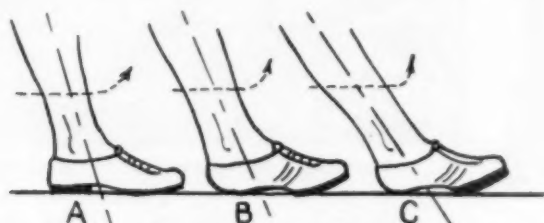


FIG. 3: High jump shoe styles: (A) old style with heel, (B) ordinary track shoe used today, (C) special shoe worn by Russians and others. Note how leg's inclination drops back from A to B to C.

and appendix of every Russian educational book and sports magazine the writer has ever seen.

It would be difficult indeed for school administrators, factory managers, and certainly the average athlete not to be influenced by such all-pervasive propaganda—especially when, as at the present time, great national and individual success attends their efforts. A Kucs or a Stepanov is truly a national hero, and ten thousand runners and jumpers are idolizing them while

together to solve the 10,001 problems in sports knowledge.

Thirdly, Russian sports training is based upon the assumption that maximum specific performance, such as in the high jump, must be based upon broad fitness in terms of strength, flexibility, and cardio-circulatory efficiency. Year-round training provides time for gradually developed programs in weight training, in gymnastic and stretching exercises, in endurance running.

Even a cursory glance at the Rus-



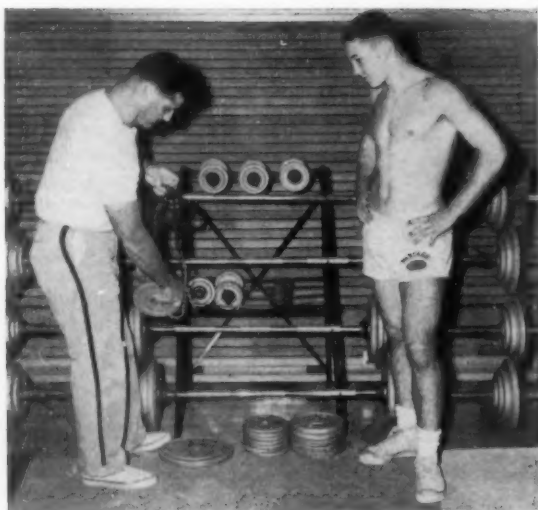
FIG. 6: Style of Nilsson of Sweden, best height 6'11 1/4".



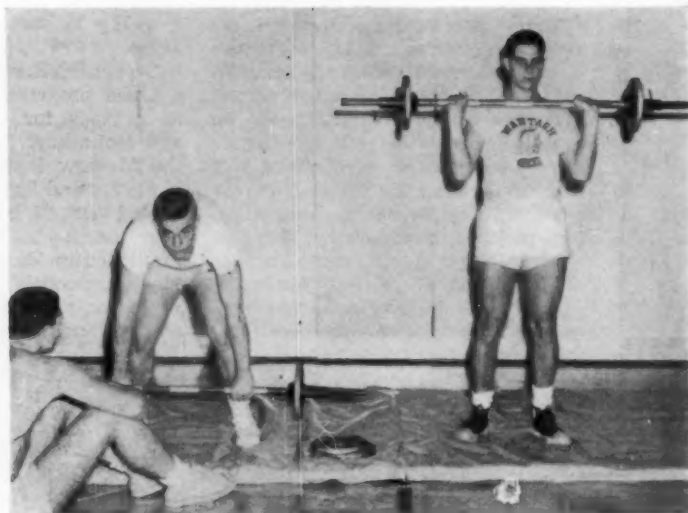
FIG. 7: Dumas at final moment of take-off.



FIG. 8: Nilsson at final moment of take-off.



One of racks for barbells and accessory equipment



Start and finish of the "Clean" fundamental exercise

A Complete High School Weight-Training Program

SINCE World War II, it has become fairly apparent that the physical fitness of our youth leaves much to be desired. Our physical education programs are at least partly responsible for this depressing situation. Being geared to a wider range of social and recreational type activities, they're placing less emphasis on body development and conditioning.

Inasmuch as most communities lack sufficient play areas (YMCA's, vacant lots, playgrounds, etc.), our schools must provide extra opportunities for youngsters to get the proper body conditioning they need. One of the best methods of achieving this, particularly where community resources are inadequate, is through the incorporation of weight training in the physical education and recreation programs.

At Wantagh High School, we invested in 20 sets of weights—and progress was discerned almost immediately! We're concentrating on body-building, though many people incorrectly classify it as weight-lifting. Whereas weight-lifting is a sport where contestants attempt to press, snatch, and clean-and-jerk more barbell weight than their opponents, body-building is simply calisthenics with graded resistance to develop the size, strength, and tonus of nearly every muscle in the body.

Of course there's plenty of exercise in weight-lifting training, but the emphasis is on handling maximum poundage. We're primarily interested in all-around development with special emphasis on muscle tone,

power, and the strengthening of ligaments encasing the joints.

The first step is to organize a club to operate several days a week after school for no more than an hour. With two or three 100-pound sets of barbells, the same number of 5 to 10-pound dumbbells, a pair of iron boots, one headstrap, a wristroller, a bench, one abdominal board, and a chinning bar, 20 boys can be kept occupied.

Most of this equipment can be constructed quite easily in the event it cannot be purchased through the school budget. Barbells and dumbbells can be made with 1" pipe, or slightly larger, and concrete. Various sized cans and pails make good forms for the concrete. Barbells should be 5 to 6 feet in length, while dumbbell handles should be about 12".

A 10 to 12 inch wristroller can be cut from an old broom handle, or a 2" x 2" board rounded out on a lathe makes an excellent one. Drill a hole through the middle on the diameter and attach about three feet of old clothesline.

Benches can be cut from 2" x 10" or 2" x 12" boards. They should be approximately 30" in length and about 16" high.

An abdominal board requires only a 7 to 8 foot 2" x 12" plank. Nail a web belt to one end so that a loop hangs in which to hook both feet. This end of the board is then elevated to various heights (such as a stepladder) according to the participant's ability.

By **JOE MARCINO**, Football and Wrestling Coach, Wantagh (N. Y.) High School

In the gym classes or in other contacts with boys, suggest the use of weights where a particular weakness is evident. Because this type of activity becomes self-stimulating, you'll note that after one boy invests in a set of barbells, many others will soon do the same.

It's also possible to have this activity added to summer recreation on a two to three evenings a week basis. Pool all available weights. One of the school's basement corridors can provide a cool working area, especially during the hot weather, if nothing better can be utilized.

If, and when, you're ready to propose the use of weights in the physical education and athletic programs, a few advantages which may be selling points to your Boards of Education are:

1. Initial cost is the only expense, since reconditioning won't be necessary.
2. Develops size, strength, and tonus of muscles.
3. Builds muscular power and endurance.
4. Equalizes strength in both arms.
5. Overcomes shyness and inferiority complex by establishing confidence.
6. Susceptibility to injury is lessened due to the strengthening of ligaments around the joints.
7. Definitely provides an outlet for excess energy.
8. Promotes sound friendship through a workout relationship of respect, courtesy, and achievement.
9. Improves the knowledge and care of the body, by learning about the effects of exercise on the muscular and circulatory systems, with better eating habits, etc.
10. From the sports viewpoint, it will be a positive help in aiding student to become better and stronger athletes.
11. Is of considerable value in the remedial treatment of injuries and structural defects.
12. The entire program sets the stage for something boys can do in their cellars, garages, or even backyards.

OBJECTIVES OF PROGRAM

Establish objectives; for example:

1. For boys in school and college: build up and improve physical fitness.
2. For working adults: keep physically fit.
3. For athletes: strengthen, build up, and keep in condition, especially during the off-season.
4. For the injured or atypicals (specialized program): promote healing, regain strength and control, and help overcome defects.

Group according to body weight as much as possible on the club level and gym class, if you're fortunate to have homogeneous groupings. Otherwise, classify by grade.

Assign no more than four boys to a set of weights.

In a gym period of 45 minutes, with four boys to a set, you can cover eight to 10 exercises, providing there aren't more than 80 in a class.

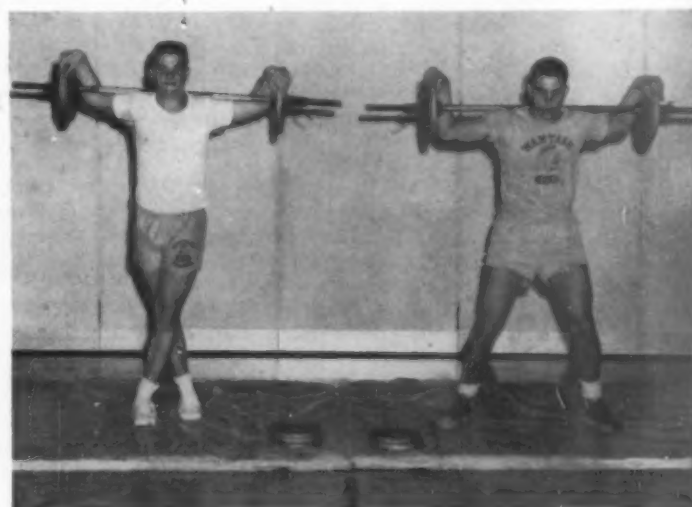
Select exercise for the muscle areas you wish developed. Later on I'll list those being used at Wantagh.

If time is limited, as in a gym class, concentrate on exercises that involve the larger muscle groups and the greater number of muscles.

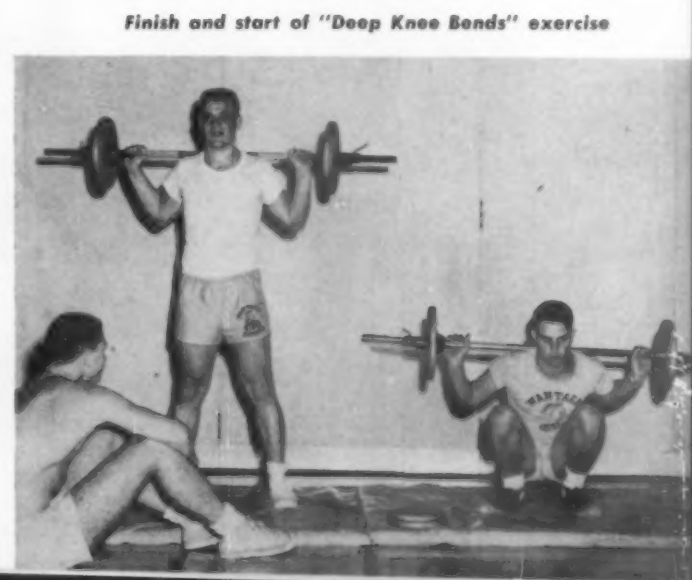
Emphasize repetition. In the beginning, each boy will have to be his own guide. But for every exercise,



Finish and start of the "Snatch" fundamental exercise



Finish and start of the "Jumping Jack" exercise



Finish and start of "Deep Knee Bends" exercise

a weight must be used which can be handled at least 10 times without any strain.

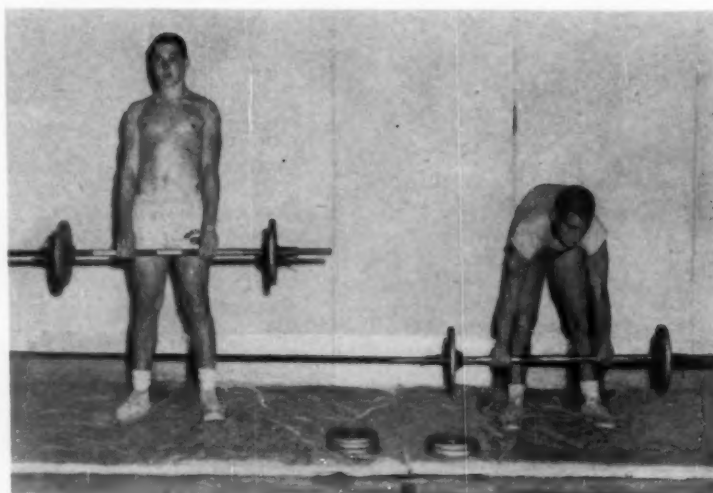
After several weeks, when the muscles begin to strengthen and this same weight can be handled 15 times, then five to 10 pounds should be added and a greater effort should be put forth with strain to reach 15 repetitions with this new weight. This is called the progressive system and should be maintained throughout.

Ideally, it's best to work out every other day, three to four times weekly. The day of rest in between has considerable merit for muscle recuperation and build-up. If this type of program is followed conscientiously for a month, I'm sure definite improvements will be observed. If you're not able to work out over once a week, the rate of advancement will be negligible.

Analyze muscle action. Be observant. Insist on complete movement. After a four-week period, there should be constant encouragement toward achieving the last one or two repetitions, and one workout a week should be set aside in which each boy should attempt to handle maximum weight for each exercise in just one repetition. This creates incentive besides giving them an idea of their progress.

After a year's time, it will be possible to group your statistics for each exercise according to grade and weight. These can be modified each succeeding year until fairly reliable norms will be established and records of achievement maintained.

Exercises that involve the major muscle groups are given below.



Finish and start of the "Stiff-Legged Dead Lift" exercise

Nearly all the companies which deal in weights will supply you with charts displaying most of these:

Neck Muscles: Headstrap exercise standing and lying on bench.

Trapezius: Shoulder shrug, rowing motion, lateral raise bent over.

Deltoids: Lateral and forward raise, dumbbell swing, pull-overs, deep breathing.

Biceps: Underhand chins, curls.

Triceps: Pressing tricep exercise, regular push-ups, tiger bend push-ups.

Forearms & Wrist: Zottman exercise, reverse curl, wrist curls, wrist roller.

Erector Spinae: Backbends, stiff-legged dead lift.

Latissimus: Pullovers from bench, wide overhand chins.

Pectorals: Deep breathing, pull-

overs, prone press, push-ups between benches with feet elevated.

Abdominals: Sit-ups (regular, off bench, abdominal board), leg raise with iron boots.

Gluteus: Deep knee bends, dead lifts, hack lift, leg press.

Quadriceps: Same as Gluteus.

Biceps Femoris & Ham Strings: Leg curls with iron boots standing and lying on stomach.

Gastrocnemius, Soleus & Ankles: Iron boot exercises, toe raises, deep knee bends on toes.

Exercises which involve the greater number of muscles and are more applicable where time is the important factor:

Warm-up exercise, squat jumps, dumbbell swing, deep knee bends (keeping feet flat), repetition snatch, sit-ups from bench and abdominal board, jumping jack, wide overhand chins, repetition cleans, raising toes to bar from a dead hang with overhand grip, keeping legs straight.

For grades 9-12, following are the weights we started with regardless of body weight, and the training course we followed. After a week, there was deviation as to strength.

1. Warm up, 50 lbs.
2. Press, 70 lbs.
3. Lateral Raise, 12 lbs.
4. Deep Knee Bend, 90 lbs.
5. Deep Breathing, 12 lbs.
6. Jumping Jack, 90 lbs.
7. Dead Lift (stiff-legged), 80 lbs.
8. Repetition Snatch, 50 lbs.
9. Toe Raises, 90 lbs.
10. Pull-Overs, 30 lbs.
11. Dead Lift (bent-legged), 100 lbs.
12. Iron Boots, leg raises and bicycle.
13. Repetition Cleans, 90 lbs.
14. Sit-Ups from bench, 15 times.

(Concluded on page 28)



Start and finish of the "Press" fundamental exercise

NOW



Millions Can Play Ball Who Never Could Before

The oldest and greatest game in the world, playing ball, is now safe for and suited to the millions of children from 4 to 10 for whom wooden bats and hard balls are too dangerous and too heavy.

World's Only Matched Set POLYETHYLENE Ball and Bat

Featherlight and resilient, the Cosom Matched Set of ball and bat is safe in the hands of even a first grade child. Both ball and bat have been scientifically engineered to assist coaches and instructors in their tasks of developing the coordination of young muscles . . . and in removing the handicaps of fear and of accidents from gymnasiums and playgrounds.

SAFE-T-BAT weighs less than a pound; the littlest fellow "takes a clean cut" at the ball. Fun Ball . . . matched to the bat . . . weighs one ounce in the baseball size; readily caught and thrown with a natural overhand action. Yet bat and ball provide authentic, accurate baseball play, specifically adapted to your problems of indoor and confined area instruction. Ask your dealer about the world's only SAFE-T-SET of ball and bat.



SCOOP A NEW WORLD OF FUN!



Both the Safe-T-Set and Scoop employ resilient, short flight polyethylene balls; Scoop using the regular Soft Ball size. Scoop is the first new way to play ball in 50 years.



COSOM INDUSTRIES, Inc.

6012 WAYZATA BLVD., MINNEAPOLIS 16, MINNESOTA

	1				2		3				4		5	6		7		8	9	10			11		12		13
	LEAD - ADVANCE				FIELDER IN BASELINE		DOUBLE STEAL				SQUEEZE FLAY		TAG	INFIELD		BALL TO SS		BALL TO 2B	RUN TO 1B	ROUNDING			SACRIFICE	HIT BEHIND RUNNER	HIT AND RUN		
	1b	2b	& 3b		Stop	Behind	1b-2b	1b-3b					S	D	UP	In Back 3b	1b-3b	2b	1b	1b	2b	3b	BUNT				
M. DuBour	✓		✓			✓		✓		✓			✓		✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	
N. Turk	✓	✓		✓	✓		✓						✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
S. Roberts		✓	✓	✓	✓	✓	✓	✓				✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	
C. Danow	✓	✓	✓	✓	✓	✓	✓		✓			✓		✓		✓		✓								✓	

Baserunning and batting check-list used at Yale. The 13 basic drills are listed across top and as player performs

each skill, a check is placed in respective box. Nearly all this work should be covered prior to the opening game.

CHECK-LIST OF OFFENSIVE BASEBALL SKILLS

PERHAPS the most important problem of the baseball coach, aside from the actual winning of games, is grounding the team on fundamentals and strategy prior to the first game.

The extent to which this can be done varies greatly. Many coaches in the South or Far West can start outside practice early, whereas coaches in the North must resort to inside practice—that is, where such facilities are available.

Even with an inside diamond, the indoctrination of the team may become an acute problem; first, because the facilities may have to be shared with another sport, and, secondly, because the period of practice is often variable. Spring vacations are frequently altered from year to year, thus presenting a new set of circumstances relative to practice planning.

The latter condition now prevails at Yale, where a mid-March vacation prevents the usual four or five weeks of unrestricted practice on a dirt-surface infield. The early vacation further complicates matters in that it eliminates the possibility of some outside practice before our annual trip South. Since the final two weeks of March, or at least the third week of March when the vacation period begins, is no time to be playing baseball around the Mason-

Dixon line, we have to go farther South for competition. This necessitates more travel and fewer games plus an additional cost to the athletic department.

In order to alleviate the various problems, it's obvious that every minute of each practice day must be used to advantage. And there must also be some way to determine if every squad member is receiving all the necessary background for games. Otherwise some player may miss an important practice session and then find himself deficient in some vital aspect of play. If the failure occurs in a close game, it might, of course, cause defeat. Games cannot always be won, but losses should seldom stem from deficiency in the basic fundamentals and strategies.

The first step in organizing practice sessions is to work out a series of drills that will give each player experience in the defensive and offensive situations which occur in regular games. As a second part of the planning, each player must be credited with the work he completes so that all members will eventually receive the same experiences.

This can be accomplished with a check system. It's set up by placing the names of the drills across the top of a page and the names of the players down the left side. A check is placed opposite the player's name

after he performs the drill.

Numerous items must be checked before the season begins. Since it's impossible to cover all of these in a single article, let's consider the specific area of offensive baseball. Even though you'll only find offensive items listed herein, the drills embody many defensive points inasmuch as pitchers, catchers, and infielders can be rotated for the various drills. In this case, infielders don't have to be check-listed for the specific fundamentals and strategy they execute because these things are performed numerous times during the base running drills.

Now consult the list. Although all of the items listed include what are commonly considered basic fundamentals, many coaches will differ in both the execution of footwork for leads, starts, and other actions as they apply to steals, the hit and run, and other tactics of offense, as well as the selection and performance of specific strategy. Here are some of the points which I want emphasized and which often require repetition to perfect the desired footwork:

1. First of all, I begin with leads and advances at first base with a pitcher on the mound. This involves the movement off base with stress on gradual weight shift away from the bag and no crossing of the legs after the player is a step from the bag. Eyes continually on the pitcher is also emphasized. The N, S, NS, and HR refer to normal advance (no break), and the steal, delayed steal, and hit-and-run breaks, respectively. In the same order these may be further clarified as follows:

Normal Advance—a fast walk is taken toward second with eyes on the ball.

Break on Steal—a cross-over step is taken with the left foot.

Break on Delayed Steal—a casual fake to return to first is taken at the end of a normal advance, then the break for second.

Break on Hit and Run—a stealing break is taken, followed by a glance toward the plate after about two steps to see if the ball is hit.

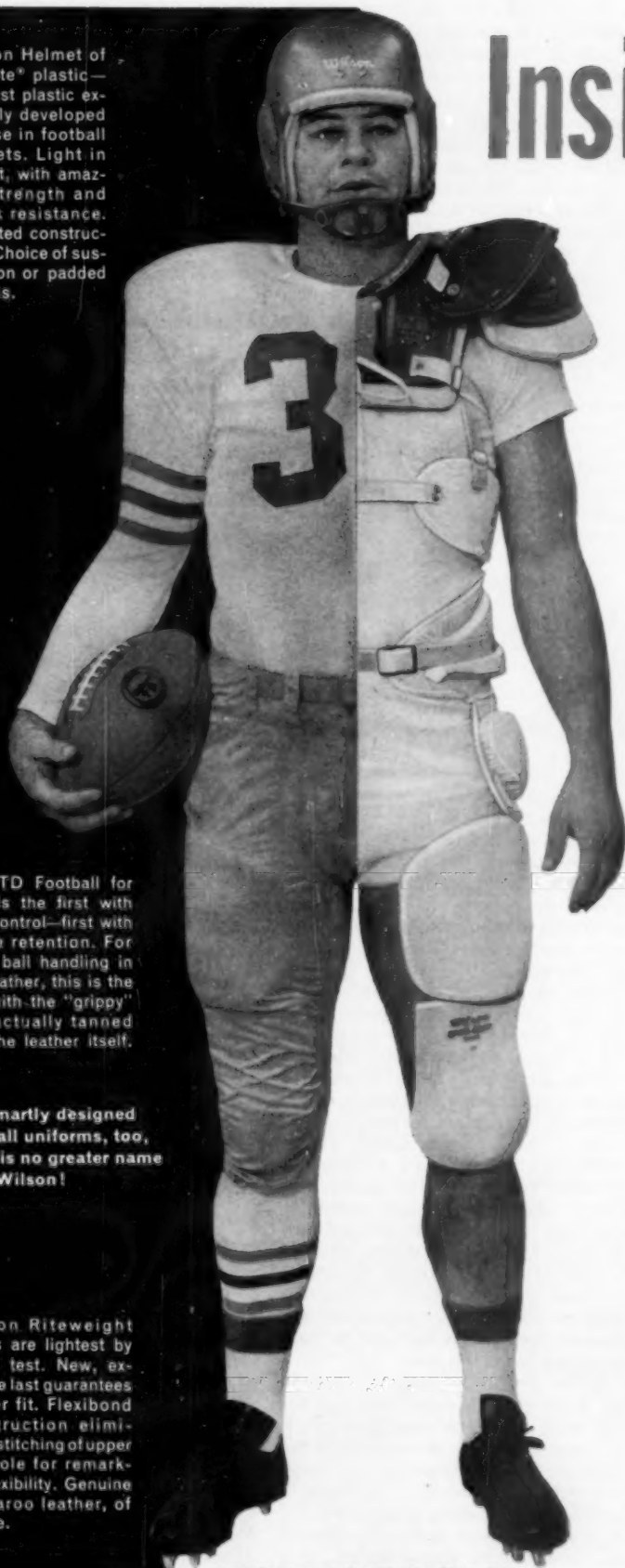
By **ETHAN ALLEN**, Baseball Coach, Yale University

Wilson Helmet of Etholite® plastic—the first plastic expressly developed for use in football helmets. Light in weight, with amazing strength and shock resistance. Patented construction. Choice of suspension or padded models.

New TD Football for 1958 is the first with size control—first with shape retention. For surer ball handling in all weather, this is the ball with the "grippy" feel actually tanned into the leather itself.

For smartly designed football uniforms, too, there is no greater name than Wilson!

Wilson Riteweight Shoes are lightest by actual test. New, exclusive last guarantees proper fit. Flexibond construction eliminates stitching of upper and sole for remarkable flexibility. Genuine Kangaroo leather, of course.



Hugh McElhenny is a member of the Wilson Advisory Staff.

Inside Story

This is a picture of the well dressed football player. And Hugh McElhenny would be the first to tell you that the Wilson protective equipment he is wearing gives him game winning confidence—helps him go all the way!

Wilson T-Square shoulder pads offer the ultimate in protection, yet allow complete freedom of movement. Exclusive T-Square design helps blocker maintain contact with his opponent on shoulder blocks; combines shock absorbing Ensolite construction with perfect fit!

Rib, hip and thigh pads by Wilson are designed by men closest to the game. They provide protection where protection is needed—and they stay there—always in place on every play.

Plan Ahead, Order Early

**Win with
Wilson**

Wilson Sporting Goods Company, Chicago, Ill.
Fastest Nationwide Service
From 32 Branch Offices



"Jim-Flex" mats are filled with 100% safe, hair layerfelt. Excellent cushioning qualities. Triple knotted tufting with double strong cord. Heavy duty handles. You'll be surprised at the downright low cost of "Jim-Flex" mats . . . our top quality line!

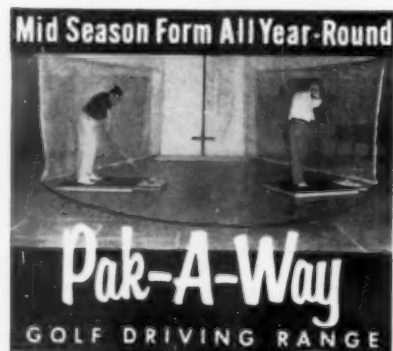
LOW BUDGET "Standard" mats, filled with high quality, resilient felt . . . 100% safe and needle-free . . . can save you even more money!

Write today for complete information about National mats, including goat hair, new rubberized curled hair, vinyl plastic heat-sealed seamed mat covers, and accessories . . . and "Mat-Hide", the new scientific, tough, smooth-coated covering for mats in ivory, blue, green, red and grey. Also heavy white duck.

• • •

National mats come in all sizes direct-from-factory at LOW, MONEY-SAVING PRICES!

NATIONAL
Sports Company
364 N. Marquette Street Fond du Lac, Wisconsin



• Entire unit can be set up for use or folded against wall in less than 2 minutes by 1 person.
• Two persons can use it at one time.

a
Complete
set up

Have your golf teams ready for spring competition regardless of outside weather . . . the only complete package golf driving range for use in gymnasiums or other rooms of suitable size. Easy to install . . . safe to use—the ball cannot be driven out of it and cannot rebound or ricochet back against the player. When not in use, the entire unit can be rolled up and fastened to top bar, lifting it 10 ft. completely out of reach. Durable and substantially made . . . will not mar surface of floor . . . may be attached to either concrete, brick, block or frame wall. Complete package includes net, backstop, and driving platforms with built-in rubber tees and brush mats . . . shipping weight 260 lbs. Write today for prices.

SINCE 1909 **BERLIN CHAPMAN CO.**
BERLIN • WISCONSIN

Leads and advances from second and third bases are discussed generally at this time and followed up later under Double Steal.

2. The matter of a fielder in the baseline can be done without a pitcher. In this case, a ball can be rolled from the pitcher's mound to the second baseman with a player running from first. This, of course, teaches a runner to stop in the baseline, if he cannot run behind the fielder. At this time, it's also advisable to inform the boys that a lead must be taken behind a player who takes his defensive position in the baseline.

3. Double steals come under two categories. With runners on first and second or on first, second and third, the least advanced runners must watch the lead runner. When the bases are filled, the runner on third is told to run wide of the plate and in foul territory so that his action won't affect the batter. This, of course, applies to a 3-2 and 2-out situation. In either case, the lead runner breaks with the pitcher's first indication he will deliver the ball.

The first-and-third double steal has three variations on the list. These are classified as regular, delayed, and on the pitcher, respectively. In the first of these, the runner on first breaks the same as on a steal, then stops in the baseline if the catcher's throw goes to second. In the second, the runner on first delays his start until the catcher is about to return the ball to the pitcher (which usually occurs just after the fake mentioned in 1). And in the third, the runner on first breaks as the pitcher is preparing to take his set pitching position. In all of these steals, the runner on third takes an extra big lead. He breaks for home if he thinks the catcher will throw to second (as the catcher's arm comes forward) in the regular and delayed double steals, and when the pitcher's attention is directed to first, in the third.

It's advisable for the coach to work at third base for these steals so that the proper footwork and breaks can be explained. Normally, it's best for the runner to take his lead on the baseline to prevent the catcher from knowing how far he's standing from the bag.

4. On a squeeze play, the runner on third isn't expected to break for the plate until the pitcher is about to release the ball. This prevents the pitcher from anticipating the play and from deliberately throwing a pitch which cannot be bunted. On a double squeeze play, the runner on third breaks the same as on a single squeeze while the runner on

second starts with the pitcher's windup.

5. The tag-up is dramatized. A player on third visualizes an outfielder catching a long fly ball and leans toward the plate just before the ball is caught. This means making the first step on the break with the foot farthest from the plate. It's the same cross-over step used in breaking on a steal—which is the proper footwork for the fastest get-away.

BASE-RUNNING ON GROUNDERS

6. Items 6, 7 and 8 are all related to some degree, since the drills all involve the action of baserunners when ground balls are hit with the infield in and back. In the first of these, a runner on third is told to refrain from scoring with none out until the ball goes by the infielders. Then the situation is changed to 1 out, and the runner now advances—trying to score or getting into a run-down, if necessary. It's important to have a set policy in this case, so that the runner on second will know how to react. In the second part of the drill, a runner on third must advance because, with a runner on first, a ground ball to an infielder might result in a double play. This is important whether the infield plays in or back.

7. With the infield back, a runner on second must be alert on a ground ball toward the third-base side of second with none or 1 out. A good rule to follow is to hold second (with 1b unoccupied) on a hard-hit ball toward or the shortstop's right. By fungoing balls in various directions, the runner learns when and when not to advance.

8. This drill can actually be performed in connection with the second part of 6. It's a repeat of 2, but when performed in a 1b and 3b situation it shows the reason for stopping in the baseline; that is, to enable the runner to score from third. Failure to do this with 1 out might result in a tag out in the baseline and throw to first for a double play, thus nullifying the run.

9. The next two drills concern running the bases. In the first of these, the importance of the batter running in the three-foot lane is emphasized whenever a throw is being made from near the plate. The matter of the run past first is also stressed, since any intent to advance toward second makes the runner liable to be put out.

10. In the first part of this drill, the batter merely rounds first. The approach in 9 and in the first part (Continued on page 49)

There's fast action in this game at McCook, Nebraska! Yet play is safe, because Seal-O-San Gym Floor Finish on the floor provides a non-slippery surface.



Seal-O-San High School, McCook, Nebraska



Seal-O-San High School, Grand Island, Nebraska



Beatrice, Nebraska, School Gym

Nebraska Schoolmen Know . . .

SEAL·O·SAN. Protects Players and Floors

When you build three new schools (at a cost of 6½ million dollars), you do your best to protect that investment! That's why the school men at McCook, Grand Island and Beatrice, Nebraska, specified Huntington Gym Floor Finishes. As Mr. Earle W. Wiltse, Superintendent of Grand Island, puts it: "Having used Huntington Seal-O-San Gym Floor Finish for a number of years in our old building, we knew its ability to protect an expensive gym floor. So we requested Seal-O-San be used on our new gym floor. It was the best investment we could make to insure long floor life." Ask your Huntington representative to demonstrate how Huntington products protect and beautify all types of floors.



HUNTINGTON LABORATORIES
INCORPORATED

Huntington, Indiana • Philadelphia 35, Pennsylvania • Toronto 2, Ontario

The Man Behind the Drum has helped many other Nebraska schools . . . a few of them are in:

Ainsworth, Allen, Alliance, Atkinson, Auburn, Aurora, Bayard, Beatrice, Bridgeport, Cambridge, Central City, Chadron, Chappell, Clay Center, Clearwater, Columbus, Cozad, Crete, Culbertson, David City, Ewing, Fairbury, Franklin, Fremont, Gering, Gothenberg, Grand Island, Grant, Harvard, Hay Springs, Hebron, Henderson, Holdrege, Kearney, Laurel, Lexington, McCook, Merriman, Mitchell, Nebraska City, Neligh, Nelson, Norfolk, North Platte, Ogallala, O'Neil, Pender, Plattsmouth, Ralston, Randolph, Rushville, Sidney, Superior, Sutton, Tecumseh, Trenton, Valentine, Wayne, West Point, Wilbur, York and others.

By **RICH HACKER**
Coach, Berkeley (Calif.) High School

BUILDING A CHAMPIONSHIP 880-RELAY TEAM

IN TRACK, the race generally goes to the swiftest. Generally, but not ALWAYS. That's what makes coaching so intriguing. You're always looking for the horses—the speed merchants—of course. But sometimes you can “steal” a race—that is, where your horses are of equal or near-equal ability.

This is particularly true in the relays. This is one event where you can at least partially compensate for raw speed by strong emphasis on technique and strategy.

First, though, you must have the absolute confidence of the boys. If the athlete or team believes 100% in what they're doing, then it's probably going to help them—so long as it isn't 100% wrong mechanically or physiologically.

The 880 relay is certainly track's

most pronounced team event, and is justifiably the climax of our (California) meets. The event has probably seen the most improvement in the last five years. Previous to 1953, only two teams had ever managed to go under 1:29.0 in California. Qualifying for last year's state meet, however, were one 1:26.9, one 1:27.2, four 1:27.3s, and two others under 1:29.0. The first five finishers in the meet went under 1:28.0!

The Berkeley High 880 relay team has qualified for the state meet four out of the last five years, finishing second in 1:26.8 in 1956 and first in 1:27.0 in 1957. Yet the best our sprinters could do in the individual events during these years was one fourth in the 100, one fourth in the 220, and one second and one first in the 440.



Suggested Stance for Pick-Up: When hand-off man is about 40-50 yards away, pick-up man assumes kneeling position looking over shoulder (top). When hand-off man comes to 10-15 yards from check mark, pick-up man assumes get-set position, looking between his legs (below).



From get-set position, pick-up man rolls into start as though running an open 100. When man reaches middle of passing zone (left), pickup man still has lean of sprinting start. Two yards later (right) pick-



up man begins to reach back while hand-off man begins to reach forward. Arm is extended all the way back slightly above belt level, palm facing passer and thumb and forefinger pointing toward track.

they're **BOTH** CONVERSE
Chuck Taylor **ALL STARS**



ALL STAR OXFORD

Newest member of the All Star family — a completely new conception in design incorporating features never offered before in a low-cut shoe — **ANGLE-CUT HIGH FRONT QUARTER** to provide wrinkle-free snug instep support — **CONTOUR FITTED HEEL COUNTER** to assure glove-smooth, positive fit — **SEAMLESS FOREPART** eliminates chafing.

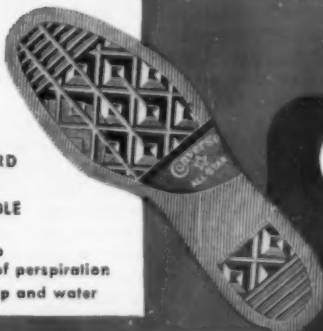
and they're both **TOPS** IN FIT, SPEED AND ENDURANCE

REGULAR ALL STAR

First on the courts for over 40 years — and still the world's outstanding basketball shoe — worn by more leading teams in high school, college and major league play than any other brand.

BOTH ALL STARS feature

- COOL, COOL FREE-BREATHING loose lined army duck uppers
- LIGHTWEIGHT for speed
- FOOTFORM LAST
- ARCH CUSHION combined with shock absorbing sponge insole
- RUGGED PROTECTIVE TOE GUARD
- DOUBLE SOLE BINDING
- NON-MARKING MOLDED OUTSOLE for positive traction
- FABRI-GARD LINING is treated to better withstand chemical action of perspiration
- EASILY WASHABLE with mild soap and water



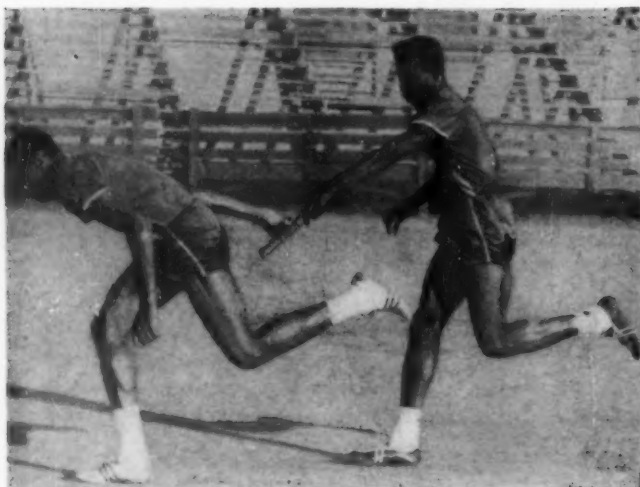
CONVERSE

Chuck Taylor

ALL STAR

BASKETBALL SHOES

CONVERSE RUBBER COMPANY
 MALDEN 48, MASSACHUSETTS



Two yards later, about 15 yards into passing zone (left), pick-up man still shows good lean and good reach while hand-off man exhibits good concentration on his target and is beginning to reach. Though boys may appear a little close, actually pick-up man is accelerating speed. Moment of ex-



change comes about 3-4 yards from end of zone (right). Both men are reaching perfectly! Both are concentrating on their own jobs, not worrying about the other. Pick-up man is now probably going faster than hand-off man. His forward lean is good for his speed and also enables him to reach back farther.

How did we do it? By team balance, intelligent deployment of personnel, and intense application of proper techniques. Let's take a closer look at these principles.

PLACEMENT OF PERSONNEL

There are several things we try to do by our placement of personnel. First, we try to get as much out of our boys as possible. For instance, some boys run better in lanes; others do better fighting for position; some start better from blocks with the gun; some are more stable than others and do a better job of receiving and handing the baton; some run best when coming from behind, while others tie up when behind; some like to run in front, others like to be buried in the race.

Generally, it's better to let a boy run the spot he wants to, unless you can convince him that both he and the team would benefit if he ran in another spot. Sometimes the boy may change his mind about his spot. But if his thinking is sound, you'll be wise to string along with him. The author has learned the wisdom of this over the years, the final clincher being the Berkeley relay team's showing in the California state meet this past year.

We had been running Henry Allums, one of our best sprinters, in the No. 1 spot. Having competed in the 100 and 220 in every meet (placing a close fourth in both sprints in the state meet), he therefore had the most experience starting. He had also run No. 1 on the relay in 1956.

Jackie Williams, our No. 2 sprinter, a junior who has a best of 9.8 and 21.5 with consistency at 10.0 and 22.0, was running second. Jackie didn't qualify for the state meet in the sprints and was therefore fresh for the relay (but not as accustomed to the gun as Henry).

It was hoped that these two would give our third man, Nat Allums, Henry's younger but bigger brother, a junior quarter-miler with a 49.4 best and about 22.6 in the 220, a jump in the break from the lanes for the pole. Nat also hadn't qualified for the state meet in anything except the relay.

Now the author has been trying for years to place the strongest fastest men in the Nos. 2 and 3 spots—not necessarily the strongest fastest men in any one sprint, but the strongest fastest available at race time. For instance, after running several races and trials, the No. 1 man very possibly may not be able to go farther faster than the fresh No. 2 sprinter.

The importance of this placement can be recognized by visualizing the race. The first man runs full speed from the start until his exchange about two yards from the end of the zone, 228 yards. The second and third men run full speed from the start of their zones until their hand-offs about two yards from the end of their zones, 238 yards. The last man runs full speed from the start of his zone until the finish line (the middle of the next zone), 230 yards.

The above reasons plus the fact that we had two good veterans available led to the placement.

The fourth man on the Berkeley team was Fred DeWitt. As a junior in 1956, Fred had run 9.8 and 21.5 but was shifted to the quarter because of (a) his potential in this event, (b) the other good sprinters on our team, and (c) the many outstanding sprinters on the Southern California teams. He had also been the No. 4 man on the 1956 relay team that ran 1:26.8 for second in the state meet. He was a good competitor who liked to run fourth.

The regular order was run in the

state meet trials. DeWitt, running with fairly good effort, ran only 22.3 in his fourth spot and we finished second in our heat.

In the afternoon finals, DeWitt ran a beautiful 440, winning by 2-3 yards in 47.9. Other afternoon finals saw Henry Allums, our sprinter and No. 1 man on the relay, running very close to the highly touted Southern California sprinters—second in the 100 by 2 yards in 9.7 to 9.6 for the winner, and fourth in the 220 by 3 yards in 21.5 to 21.2 for the winner. We were all understandably pleased with Henry's performance in such a field.

These two factors—DeWitt's wonderful though fatiguing 440 win and his relay trial's showing, plus Allums' showing against the top sprinters and his desire to run against them again—led these two boys to decide that they would like to switch legs in the relay final. Their idea was certainly well-conceived and certainly overshadowed the possibility of exchange trouble, their basic "fresh" speed being about equal. So we let them do it.

In the final, DeWitt in lane 3 led off and could manage only a 22.3. Williams took over and ran 21.8 in the lane. Nat Allums left the zone one yard behind the boy in lane one, with three boys collapsing in on him from the outside. He was neatly boxed by these four men going into and around the turn. At that perfect spot, about 15 yards before the track straightened out, one of the outside men in the box moved a little wide and Allums shot through the opening.

This probably won the relay for Berkeley, thanks to Nat's good speed, his freshness, and his experience and endurance gained from his quarter-mile training. Nat gave his brother Henry a two-yard lead over the other anchor men.

Henry ran as we hope anchor men

WYATT'S

Steel Tip Rubber Cleats



Steel Threads and Tip
One Piece Construction—
To Assure Holding Power

COACHES:

Here's a hardened steel tip cleat with a body made of tough non-deforming rubber. It was designed especially for maximum durability and light weight. The steel tip and the threaded steel core of the cleat are one piece. This makes it impossible for the tip to break off. The tip is convex eliminating edges and is highly polished.

Team Price (in boxes of 1,000) \$59.50 per thousand

FREE SAMPLES—If your local dealer doesn't have our steel tip rubber cleat in stock, send us your name and address and we will send you a sample cleat and the name of your nearest dealer source.

Wyatt's

PLASTICS, INC.

P. O. BOX 3052 • HOUSTON 1, TEXAS

YORK

Sensible Weight Training Methods

have helped to make many athletes stronger, faster and better—such as Rev. Bob Richards, Parry O'Brien, Harold Connolly, and thousands of track, baseball, basketball and football stars.

YORK BARBELLS

are famous the world over. When you want the best in weight training equipment—come to

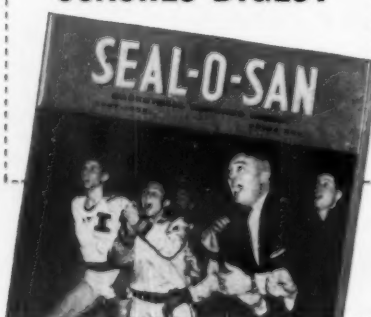
YORK BARBELL COMPANY

YORK, PA.

COACHES: Send for free copy of *Strength and Health*, the magazine that stresses weight training for athletics. Ask also for the famous YORK catalog.

Send for it today!

1957-58 BASKETBALL COACHES DIGEST



HUNTINGTON LABORATORIES, INC.
Huntington, Indiana

☐ Please send me 1957-58 SEAL-O-SAN Basketball Coaches Digest. (Free to coaches and school officials. All others please enclose 50¢ handling fee.)

NAME _____ TITLE _____
SCHOOL _____
ADDRESS _____
CITY _____ STATE _____

will, running within himself while holding the others on his shoulder. You could sense that the two boys on his shoulder were merely biding their time until the straightaway when they would pass him.

Again at that perfect spot, about three yards before the others shifted into high for the race to the tape, Henry poured it on to gain about a 2½ yard lead. He still led by one yard at the finish.

The second thing we want to do in our placement of personnel is merely a by-product of the first. Generally speaking, the best man or team in a race will win. This will always hold true if the best man or team achieves his best. In a negative way, then, our order may be dictated by the strength or weakness of our opponent. But this is probably more academic than practical, since we don't usually know very much about the other team's personnel.

INDIVIDUAL AND TEAM PRACTICE

It goes without saying that we must have at least two of the team present in order to practice—or does it? One very important, perhaps crucial, part of the relay can be practiced individually. This is, of course, the exchange. Part of the exchange requires a teammate for work on the timing, but a vital part of the exchange can be worked on individually.

It can be demonstrated that the normal action of the arms in sprinting is back and forth. The extension straight forward or backward of one of the arms for more than a normal interval tenses the body, can turn it away from its straight-ahead direction, and is almost certain to affect speed.

The longer one tries to hold the arm and hand steady, the more it's likely to move. Since the arms of the incoming and outgoing men need be extended at only the moment of exchange, and since we know approximately when this exchange must occur, we would like to reach for only that instant.

We need merely have two boys sprint 20 yards against each other, one with his arm held stiffly behind or to finish the last 20 yards of a 220 with one arm extended straight ahead to convince ourselves and more important, the boys, that the less time spent reaching the better.

This, then, is something important that can be practiced individually and as part of the regular conditioning program. The boy takes off from the start of his zone as fast as he can, arms pumping. At a point a little over halfway through the zone (12-14 yards), he extends his arm all the way back, palm facing the man who'll do the passing, with thumb and forefinger pointing toward the track.

The arm and hand isn't just down but back as far as it will go, reaching toward the teammate at about or slightly above belt level. The boy should hold this position for the next 3-4 yards and then start pumping again.

ONE of those fabulous California schoolboy track coaches, Rich Hacker turns out crack thin-clads in wholesale lots. Several of his boys have set national records, and his Berkeley High School team won the famous California state meet last year. A graduate of Oberlin College, Rich coached track and football at Stockton High from 1949 to 1951 and assisted in these sports at Hayward High in 1951-52 before arriving at Berkeley in 1952.

If another man is available, he might run to the side and slightly behind the man practicing the pick-up, staying closer than our regular man would ever be, and when the pick-up arm is extended, bring a baton up into the hand. This assistant can start a little ahead of the practicing pick-up man in order to concentrate on an accurate baton placement at the 15-yard mark.

Prospective relay men should carry a baton during most of their work and during the course of their practice 75s, 150s, and 220s. They should practice the long reach with an upward thrust of the baton hand and a slight turn of the shoulders to get that extra six inches of reach. They should practice this after reaching a certain spot in an imaginary zone (12-14 yards in), maintain the reach for 3-4 yards, return to their normal ¾ sprint, and repeat about every 30 yards.

The exchange, whether it be from left to right or the reverse or alternating, depends on where the exchange occurs and personal preference. It needn't be discussed here.

The total relay time, then, can be affected by:

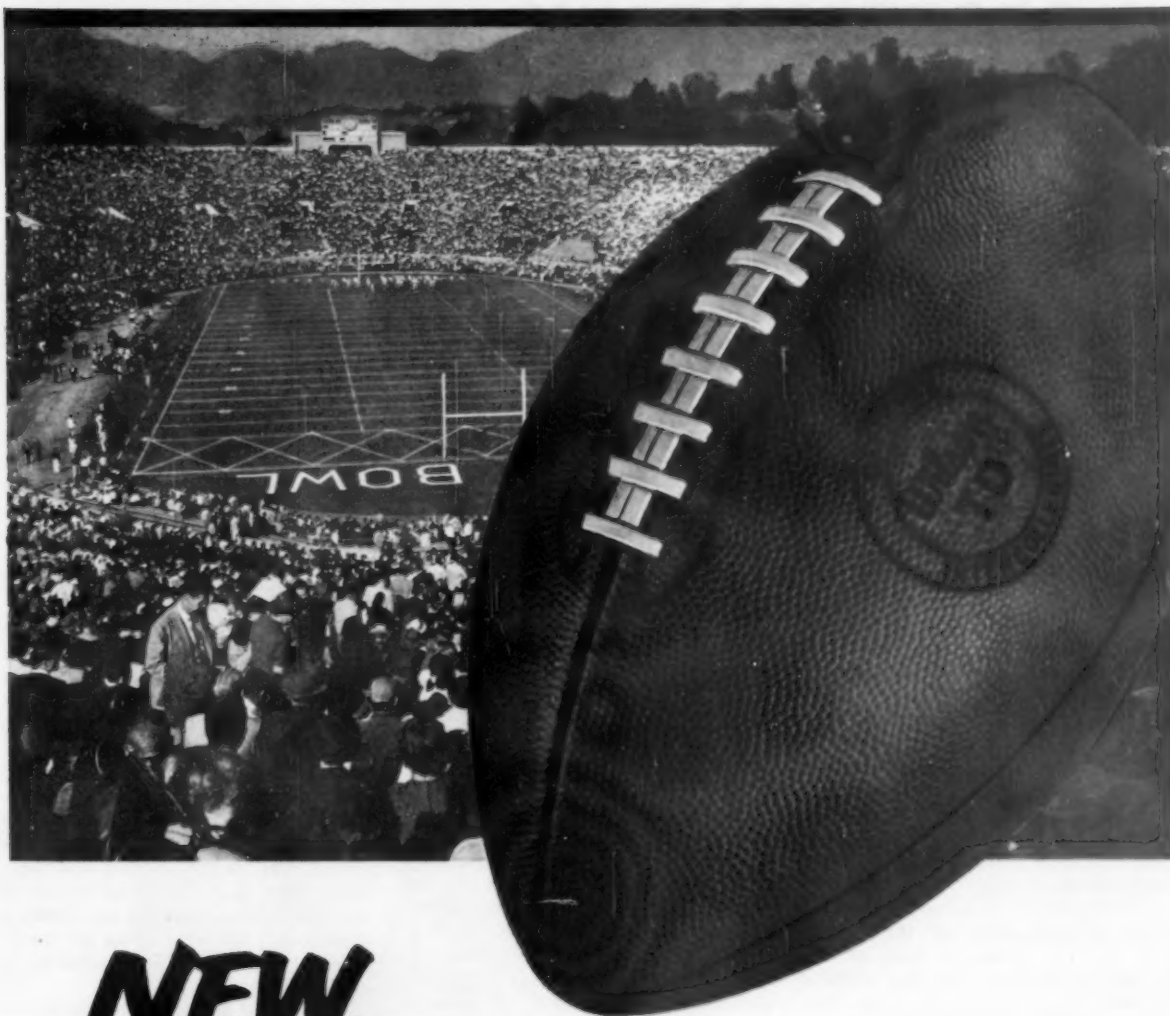
1. Attaining the individuals' speed potentials.
2. The ability of the boys to hand off efficiently. This isn't only important from the disqualification angle, but also from the time standpoint. If boys have confidence in their exchanges, they'll lose less time accomplishing them. Obviously, too, the more distance between the boys at hand-off time, the faster the relay.

Is there any additional way to improve relay performance? Perhaps. If we could look at a graphic representation of the speed of the relay, we would see several dips or slow spots that mar the "straight line" speed consistency. These occur at the start, when the first man is picking up speed, and shortly before and after the moments of exchange.

These moments of exchange offer the main possibility for relay time improvement. It has been mentioned that we try to reduce the hand-off men's loss of speed by not reaching too soon and that we try to pick up a yard or so (perhaps .1 of a second)

(Continued on page 60)

FIRST CHOICE IN BOWL GAMES



NEW, 1958 Wilson **TD** FOOTBALL

"THE BALL OF FAME"—PLAYED IN 13 OF 17 MAJOR BOWL GAMES CLIMAXING THE 1957-58 SEASON

First with *Size Control*

First with *Shape Retention*

First with natural friction-grip feel
tanned-in for better ball handling
in all weather. No surface coating!

ORDER NOW for Spring Practice and the 1958 season

Win With **Wilson**

Wilson Sporting Goods Co., Chicago

SPORTSMANSHIP

as a COMPETITIVE EVENT

SPORTS competition doesn't end at the boundaries of the playing field for high schools of the Pioneer League in Southern California. Spectators, as well as players, enter into the friendly rivalry for the league championship. Just as teams may win athletic trophies, so may the student rooting section win the Sportsmanship Trophy.

Every student body is rated on its behavior at all games—as shown in the accompanying rating sheet. Official judge is a faculty member from a neutral school, assigned to the game as official scorer by the League Secretary. Assisting him are one or two members from each competing school, designated to serve as spotters and assistants.

Individual rating sheets are filled out by both the official scorer (official judge) and the student judges. The latter ratings are turned over to the official judge, who carefully considers them in filling out his own sheet—which becomes the official score sheet.

Three copies of the official rating sheet are prepared by the judge. One copy is given to each of the competing schools, and the third is mailed to the League Secretary. The student rating sheets are returned to the individual schools for analysis and comparison with the official score sheet.

The judging period extends from 15 minutes before game time until the completion of the playing of both alma maters at the conclusion of the game. Only that portion of the campus designated as the playing field or stadium is considered in the judging, although these boundaries include the bleachers, end zones, snack areas, and the grounds beneath the bleachers.

Adult spectators aren't considered in the sportsmanship judging. The student assistants furnish valuable aid to the official scorer in the determination of members of the competing student bodies.

The official rating sheet covers nine categories (as shown) with points awarded as indicated.

The points listed in each of the categories are split comparatively between the competing schools. The total points given both schools may not exceed the amount specified for that category.

For example, if the judge felt that the schools were tied in category #1 where 15 points are to be awarded, he would give each school 7½ points. Since the total number of points indicated must be awarded in each category, the combined scores of both schools will always total 100 points.

To cut down on the sideline traffic problem, so prevalent at some games, regulations state that only

the following personnel are authorized to follow the game from the sidelines:

Chain gang	2 persons
Down box	1 person
Statisticians	2 from each school
Photographers	2 from each school
Newspaper reporters	2 from each school
Spotters	2 persons
Announcer	1 person

Personnel other than those listed above must be seated behind the line of the players' bench.

Other possible trouble spots have been anticipated by the League and the following preventative measures have been taken.

Students are assured seating by making it the responsibility of the "host" school to hold a reserved section in the stands for the visiting school until 30 minutes prior to game time.

Courtesies toward visiting schools covered under point #9 on the rating sheet, are limited to the decoration of goal posts, the giving of a "hello" yell or the posting of a welcome sign, and the reservation of seats in the stands. By so limiting courtesies, the rendering of such, which might become expensive, is kept under control.

Because of the clean-up problem, the throwing of confetti has been banned at all league games. Due to the threat of eye or facial injury to spectators, sticks used as handles on pom-poms and pennants are limited to a length of no more than four inches.

Artificial noise-makers such as horns and bells are prohibited by league rules, except when used as a part of an organized band. Megaphones aren't considered artificial noise-makers.

Regulations state that proven pre- or post-game rowdiness must be reported in writing to the League Secretary by the vice-principal of each school, and that the League shall rule as to the penalty to be assessed in such cases. The fact that this situation has been kept to a bare minimum bears testimony to the effectiveness of the Contest.

(Continued on page 43)

OFFICIAL SPORTSMANSHIP RATING SHEET

1. Cooperation with song and cheer leaders	15 points
2. Spirit of the rooting section	15 points
3. Respect for both alma maters	10 points
4. Respect for stadium regulations (keeping field clear, sitting in assigned areas, etc.)	10 points
5. Respect for state and local laws and league regulations (smoking, drinking, fighting, artificial noise-makers, confetti, etc.)	20 points
6. Excellence of exchange yells	5 points
7. Respect for officials	10 points
8. Punctuality of student judges (report to timer's table 30 minutes before game time)	5 points
9. Courtesies toward visiting school (special decorations, reserved sections, corsages, etc.)	10 points

SPANJIAN

806

ONLY 9 YEARS OLD

AND ALREADY

A CLASSIC



Sculptured in nylon-cotton knit, this practice pant has become a classic with today's leading teams. Perfect placement of pads insures your men maximum protection. The right cut and elasticity give a freedom and flexibility never before possible in a football pant. The knitted-in Spanjian quality offers the kind of durability you have been looking for...game after game. Ask your Spanjian dealer about the 806 practice pant...you will find that he has them in stock right now for spring practice. Write for your free 1958 football catalogue and prices to: P.O. Box 3111.

Spanjian PASADENA

AALCO ROCKER HURDLE

Ruggedly Constructed—Moderate
in Price—Designed for Safety



SIMPLE DESIGN
—Meets official requirements. Cross bar adjustable to desired height. Base legs weighted for stability. Tubular steel frame. Open type construction. 42" wide. Nests compactly for storage. No. ARH42—Shipping weight each, 23 pounds. F.O.B. St. Louis in flights of 10, \$22.50 each.

AALCO JUMP STANDARDS

TWO MODELS • OFFICIAL AND COMBINATION POLE VAULT AND HIGH JUMP STANDARD.

Aalco Jump standards are made of strong tubular steel risers with heavy steel bases. Firm, durable. The official model adjusts to 7 ft. Sliding cross bar supports on the Combination Standards make them ideal for high jump practice as well as pole vault. Aluminum finish, black calibrations on each style.

Consult Your Sporting
Goods Dealer for Prices

Send for New Catalog

AALCO MFG. CO.

2729-R Wyandotte St.
St. Louis 11, Mo.



Prescription Ground BASKETBALL GLASSES

Meet U. S. Gov't Safety Standards



**Precision Built—Shock Resistant
— Case Hardened**

They're built to withstand rugged wear and hard knocks. Lenses are ground to the exact prescription of the individual player from finest optical glass, then case-hardened to meet Gov't. Standards for safety. Full vision—comfortable—rigid.

Lenses are set in frame of non-corrosive white metal, with elastic head band for players or conventional temples for coaches and officials. Truly they're "tops" for practice or games.

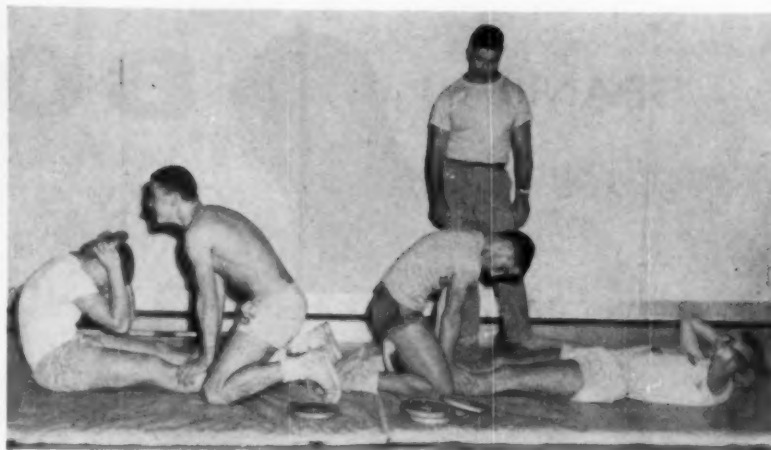
When ordering, send prescription and size of present lenses. Allow 5 days for delivery.

Only \$21.75

Free brochure on request

PRECISION ATHLETIC GOGGLE CO.

Dept. 457-B, Rochelle, Ill.



Physical ed class teaming up for sit-up exercises

H. S. Weight-Training Program

(Continued from page 14)

QUESTIONS AND ANSWERS

1. How do you control breathing?

Usually you inhale before exerting your effort. Breath forcefully and as deeply as possible to help enlarge the chest cavity.

2. What are the chances for injury?

Very little. Insist on starting gradually with no straining for extra repetitions until after the third week. If you attempt to perform with a weight which is too heavy, it's possible to strain muscles. Eliminating "showing off" will be helpful.

3. Can it be overdone?

In the beginning, yes. Once the muscles have been acclimated, however, a two to three hour session each day won't be harmful. As mentioned previously, it's best to work out three or four times weekly. When starting, generally there's a loss of weight due to fatty tissue breaking down. Thereafter, muscle tissue is built up and gain in weight will be noticed.

4. At what age level can you start?

Boys from fourth grade on can profit considerably from properly adjusted weights, but the tempo of your program would have to be modified.

5. Will this have a tendency to make you muscle-bound?

It's possible if the program isn't properly controlled. When combined with other activities and if complete movement is practiced, there's no danger. For athletes in season, the use of lighter weights and more repetitions is advisable; out of sea-

son, the opposite would be beneficial. Boys who devote their time to weight-lifting solely without observance of proper movement may become muscle-bound. However, I don't consider this a serious condition. It's much easier to cure than delinquency.

6. How many weights do you need to conduct a satisfactory program and about how much would it cost?

Anticipating no more than four boys per set of weights, it would be possible during one gym period of 45 minutes, including time for change and shower, to have 80 boys complete 8 to 10 exercises with 20 sets of weights. With fewer enrolled, more exercises could be added or less weights needed. Approximate costs of 20 sets would be \$800 to \$1000. One set includes: 110 lbs. of plates; 5-ft. bar complete with collars; 1 pair of dumbbells; 1 head-strap; 1 pair of iron boots; 1 wrist roller. Also included in this price is a sufficient quantity of two-by-fours to build five racks to hold all of the equipment mentioned.

After working with weights for a number of years, I'm firmly convinced of their value and believe they have a definite place in the school program.

If ever and whenever physical unfitness reaches a critical stage, it's conceivable that the trend in physical education will shift towards greater emphasis on calisthenics, apparatus, strength-testing, and the more formal regimented program—with weights playing an integral part.

ANNOUNCEMENT

LEADING BARBELL MANUFACTURER OFFERS NEW PROGRAM OF WEIGHT LIFTING CLINICS TO SCHOOLS

FREE to your students in cooperation with
local sporting goods dealer—by appointment

In keeping with the new appreciation of weight lifting as an ideal all-around body builder for teen-agers, the Billard Barbell Company announces this unprecedented school program.

Demonstrations and student participation programs will be conducted at your convenience by one of the world's top strong men, Bruce Randall. A "Mr. America" award winner and a phenomenon in the sports world for the wonders he has wrought in his own physique via barbells, Bruce Randall will show your students the training methods that helped him become a football, shot put, and swimming star... and now, at 25, a successful business man (he is Public Relations Director of the Billard Barbell Company).



HOW THE CLINIC WORKS:

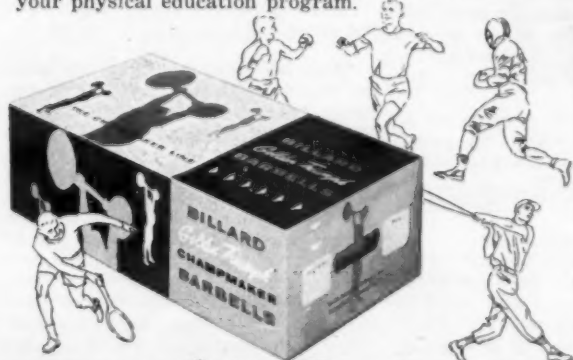
Mr. Randall will introduce your students to weight lifting and its applications to development for other specific sports. He'll demonstrate Olympic lifts and

body-building exercises, show the basic equipment, provide barbells and dumbbells from local sporting goods dealer so that students may join in the demonstration and conduct a question and answer period.

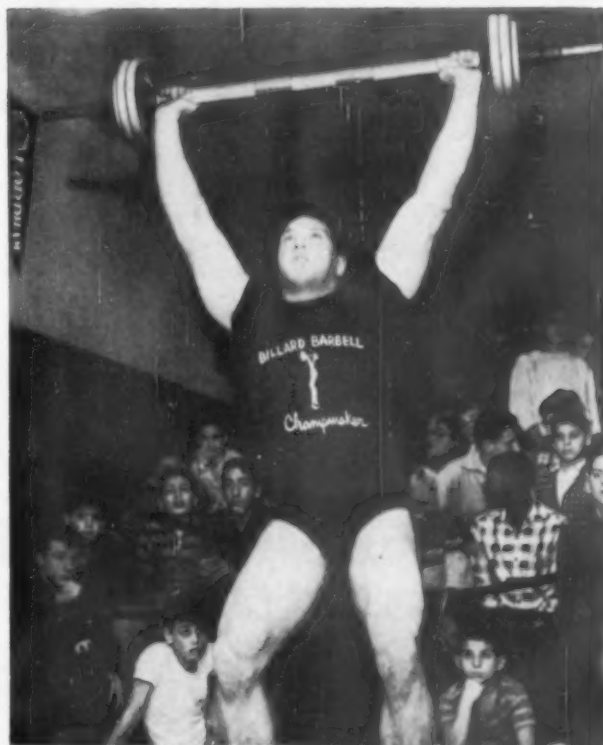
WHAT YOU SHOULD DO TO PARTICIPATE:

Send a postcard or the coupon below. Mr. Randall will communicate with you promptly to make arrangements.

This is a valuable opportunity to entertain your classes, introduce them to a healthful new sport, and inform yourself about its amazing adaptability to your physical education program.



BILLARD Golden Triumph BARBELLS



BILLARD BARBELL CO., Mansfield, Penna.

Gentlemen:

ATT: School Department

☐ We are interested in having the Billard Weight Lifting Clinic in our school. Please write or phone immediately to make arrangements.

NAME..... POSITION.....

SCHOOL NAME.....

ADDRESS..... ZONE..... STATE.....

CITY.....

PHONE NO.....

YOUR SPORTING GOODS SUPPLIER.....

COACHES' CORNER



Please send all contributions to this column to Scholastic Coach, Coaches' Corner Dept., 33 West 42 St., New York 36, N. Y.

AFTER West Virginia snapped North Carolina's 37-game winning streak, the Tar Heel coach, Frank McGuire, went into the Mountaineer dressing room to congratulate them.

One of the sportswriters, impressed by this exhibition of graciousness, shook Frank's hand and said, "That was a mighty fine speech, sir."

"It should be," smiled McGuire. "I've been practicing it for 37 games."

Maryland's governor, Theodore McKeldin, played host to Queen Elizabeth and Prince Philip at the Maryland-North Carolina football game last season.

The Queen's first question when the teams thundered onto the field was: "Where do you get all those enormous players?"

"Your majesty," replied the governor, "that's a very embarrassing question."

Back in the days of Eddie LeBaron, the College of the Pacific football team was walking through a train en route to the diner when they passed two elderly women.

"Who are all those big men?" one little old lady said to the other.

"Oh," was the reply, "that's the College of the Pacific football team."

"My," the first lady said, looking at LeBaron, "isn't that nice. One of them is taking his little boy to the game."

People are always asking little Eddie LeBaron if pro football is dirty. "No," he always answers. "You have to remember that a fellow like Len Ford of the Browns has to defend himself. After all, he's only 6-feet-5 and weighs just 270 pounds."

The practice field was across the highway from the locker rooms, and every afternoon the players would

have to cross the road after donning their gear. The school, fearful of their gridders' safety, put up a sign for motorists: "Drive carefully. Don't injure our players."

Under which a discontented fan chalked: "Wait for the Coach!"

The pro hoop coach, a strict disciplinarian unhappy about his team's condition, decided to make a surprise bedtime check. He went up to his big center's room and knocked on the door. No answer. Suspecting the worst, he turned the knob and walked in.

A cloud of cigar smoke assailed his nostrils. "Cappy," he called, "are you here?" No answer. So he started tracking down the smoke. It led to the bathroom. He pushed open the door and saw a huge spiral of smoke coming up from the circular shower curtain. The coach tore open the curtain and there was his star player clad in pajamas with a huge stogie in his mouth.

"Cappy," the coach sternly rasped, "what are you doing here?"

"Ssh, Coach," the big boy murmured. "I'm voting."

An Irishman named O'Shea came to America and wanted to attend a big league game. Since all the seats had been sold out, the management set him up on the flagpole. When he returned to Ireland, his neighbors asked him: "What kind of people are the Americans?"

"Great!" he said. "They gave me a special seat and just before the game started, they all stood up and sang, 'O'Shea can you see?'"

Pin-point marksmanship:

Sportswriter Leonard Koppett: "Columbia had such a poor team last year they couldn't even win a toss."

Pitcher Tommy Byrne: "The Yankees are going to have a lot of trouble signing me this year—I'm thinking of retiring."

Humorist Abe Burrows: "It isn't as

if we're losing a baseball team in Brooklyn as much as we're gaining a parking lot."

Chris Schenkel, the pet football telecaster of NBC, seems to be a nice enough chap and owns a nice enough voice. But he has two slight difficulties: (1) he doesn't know much football, and (2) he exhibits an odd sort of inarticulateness.

Before turning the dial after the first quarter of the Montclair-Bloomfield (N.J.) schoolboy game last Thanksgiving Day, we caught these weirdies:

"Haines gains yards on the play, but is stopped in his tracks."

"No official state crown is awarded (in New Jersey), but mythically is talked about."

"They're playing like an underdog—with renewed courage."

"The penalty is against Montclair." (While the official and the teams are trotting down the field to change sides after the quarter.)

This fellow Schenkel obviously is carrying on in the glorious tradition of Graham McNamee and Harry Wismer.

The slave-driving coach, dismayed at his failure, decided to go to a psychiatrist. He stretched out on the couch and began mumbling his troubles.

At a crucial point, the psychiatrist missed some words and asked: "Would you mind repeating what you just said?"

"I said," roared the coach, "for some reason nobody seems to like me. Why don't you pay attention, you knucklehead!"

The Yankees didn't endear themselves to the good Milwaukee people last fall, and one of the local sportswriters wanted to make sure he wasn't mistaken for a New Yorker. Getting off a bus at County Stadium, he loudly declared, "I want everybody to know that I'm not a New Yorker."

This made the *New York Times* diamond expert, John Drebing, kind of indignant, and he roared, "Well, I'm proud of being a New Yorker. In fact I was born on the sidewalks of New York!"

"How uncomfortable," murmured the other.

"Undying faith" could be the label for this one. During tryouts for the varsity swimming team at Bayard Jr. High in Wilmington, Del., Coach Charles Perrone set up kids in the five lanes and had them dive off at the sound of his gun. To his amazement, only four broke to the surface.

The coach promptly took a dip of his own (with whistle, stopwatch, and sweatshirt). He lifted out a floundering form and checked to see that the kid was okay, then snapped: "How come you dived into the water without knowing how to swim?"

"I knew you wouldn't let me down, Coach!" the kid replied.



GET ENTHUSIASM !

Free ... complete kit to organize a gold medal

HARVARD TABLE TENNIS TOURNAMENT IN YOUR SCHOOL, PLANT OR RECREATION PROGRAM

Everyone plays in a Harvard Gold Medal Table Tennis Tournament . . . because everyone enjoys this exciting event that serves more players, in less space, without any permanent installation and at lower cost than most other school sports.

We will send, **ABSOLUTELY FREE**, the Harvard Tournament Kit containing everything you need to organize your own full-participation tournament: Harvard Table Tennis Teacher with instructions, rules and tournament tips; 2 Tournament Charts; complete publicity program and tally sheets.

FREE . . . for your winners, Harvard Gold Medals and award certificates when you complete the tally sheets. Mail the coupon below today.



Harvard **TABLE TENNIS CO. 60 STATE ST. BOSTON 9, MASS.**

Gentlemen:

SC-2

In order to run a table tennis tournament please send us the **FREE** Harvard Tournament Kit.

SCHOOL OR ORG. _____
NAME _____
POSITION _____
STREET & NO. _____
CITY _____ ZONE _____ STATE _____

We plan to start our tournament on _____

There will be approximately _____ participants.

We do _____, do not _____ offer table tennis all year.

Table Tennis is part of our _____ program.

There are _____ in our school or organization.

The new, complete line of

Trainers Supplies from Bike

(employing important discoveries
of the Bike Research Laboratories)

Now there's a better line of training room *chemicals*—from Bike, long the quality name in such training room equipment as supporters, tapes, wraps, pads and first aid supplies.

What's better about Bike? For one thing, the chemicals are more convenient to apply. Many of them are packaged as aerosol sprays. The salt tablets dispense individually. The athletic liniment goes on as a foam.

New, Exclusive Ingredients

And what's *inside* is better. Exclusive ingredients are formulated in the Bike

research laboratories to act faster and more effectively.

An example is "a-Carboxythioanisole," the wonder drug added to the new Bike Foot and Body Powder, and Anti-Fungal spray (see below) that gives them important fungicidal, keratin exfoliative and anti-perspirant properties in the treatment of athlete's foot.

Send for Free Sample

See for yourself the kind of improvements Bike has incorporated into its revolutionary new line of trainers supplies. Write today on your school letterhead for a free sample.



Foam Liniment Foot and Body Powder Anti-Fungal Spray

ONE SOURCE FOR ALL YOUR TRAINERS SUPPLIES



Analgesic Balm



Special ("Hot") Analgesic Balm



Germicide



Skin Toughener



Athletic Ointment



Tape and Bandage Adherent



Tape Remover

**Dextrose Tablets; Salt Tablets;
Aspirin Tablets; Ammonia Capsules**



Trainers Kit

Sold only by sporting goods dealers

BIKE

THE KENDALL COMPANY

BikeWeb Sales Division, 309 W. Jackson Blvd., Chicago 6, Ill.

Pole Vaulting Techniques

(Continued from page 9)

See accompanying table for answers.

3. How close do you keep your hands after the pole plant? If not touching, why do you keep them apart?

Bragg: I try to get them together. But on my very good vaults, they always seem to be apart. My hands are usually 3 to 8 inches apart. I seem to get better power out of my lower hand this way. I never would suggest more than 6 inches apart.

Cooper: About 2-3 inches gives me better control.

Welbourne: My hands are usually touching after the shift. If over 2 inches apart, they feel awkward. I believe that the higher the grip, the less likely you are to get the hands together.

Mattos: I try to get them as close as possible. In any vault that "feels good," I can realize my hands are together. I seem to get the pole out in front of me better.

Gutowski: In the slide, I bring my hands together; they are touching.

Laz: On my best jumps, the left hand slides up under my right hand so that only the thumb and first two fingers of my right hand are on the pole; the other two fingers grip the left hand.

Graham: My hands come within 3 or 4 inches of each other. When my hands come completely together, I cannot control my arms during the turnover. I get a much more powerful pull when the hands are apart.

Poucher: My hands come within 3 inches of each other but never touch. Keeping them apart gives me better balance at the take-off, better control during the swing, and more shoulder strength in the pull. Vaulters like Laz, Harrington and Barnes, who keep their hands together, are often off-balance and this may have something to do with it.

Morris: My hands aren't always the same on the slide. I feel much stronger when they're about 2" apart. Sometimes they're too close and I catch the upper finger on my left hand between my right hand and the pole. On my 15'¼" jump, my right hand slipped at least 8" from my 13'2" grip, which I could see in the film of this jump.

Levack: I shift my hands as close as possible—usually they're 3" apart. When hands are apart, I get a stronger pull but a shorter swing.

4. How do you adjust your speed in the vault? Do you do any special speed training?

Bragg: I run many 440's and 220's. Check-marks seem to make me run

in spurts, which I do not prefer. I run daily after vaulting.

Cooper: My last 5-6 strides are accelerated. I practice lots of short sprints.

Welbourne: I do a lot of speed work. My speed is not the same each day. One day I may drive and another seem to float; and sometimes I seem to use a high knee action. In the vault, I start at fairly good speed, pick up my check-mark, and drive into the box.

Mattos: I try to think of driving forward as I approach the box. I think of the actual running between the 100 and 50 foot marks. I do this by trying to increase the speed of my leg movements. Training is mainly 60 yard sprints. I try hard to relax my upper body; it sort of glides forward.

Gutowski: I start out fast, coast and then drive into the vault. This year most of my training was devoted to speed work. I believe that once your form is developed, speed is the secret and most important aspect of the vault.

Laz: I train on 440's and 220's. I feel that I can never do too much running.

Graham: No comment.

Poucher: For the short man (5'7"), speed is essential. I practice vaulting without running hard because Dick Ganslen taught me to rely on my swing and the pole during practice. In vaulting, I use the least possible effort to clear lower heights and, at maximum heights, I think it's essential to get maximum speed out of the run without introducing too much

tension. Good relaxation is essential for the jump off the left foot.

Morris: I pick up speed as fast as possible without affecting my pole carry. By the time I hit my second mark (69 feet out), I'm going full speed with a 124 foot run. I continue driving hard to within about 2-3 strides of the take-off. From here, I continue speed but don't continue drive.

Levack: I start my run slowly and gather about 30 feet from the take-off. I do a lot of work with the sprinters.

5. How do you time your pole plant and what kind of a pole plant do you use? Are you satisfied with your present pole plant?

Bragg: I think this is the most neglected part of vaulting. A great deal of momentum is lost in a faulty plant. I seem to use an in-between plant, not underhand or overhanded, but it may be a little more underhanded. I try to get the pole there before I arrive, about a step and a half out. My best vaulting seems to come after I've worked on the pole plant.

Cooper: This, I believe, is the most important part of the vault. Slide pole through the bottom hand and getting pole way out in front, underhand-thrust-up. I was seldom satisfied with my shift because it was usually too late.

Welbourne: The plant is timed to be in the box before the left foot hits. It's timed by driving the pole forward in front of the body. I use what would be called a medium plant. It isn't underhanded or overhanded. The right hand passes just below the shoulder (it doesn't have to swing out to any extent). The action is straight forward. My present pole plant is good; I'm disappointed when I take my concentration off this point. We all know that a good pole plant and take-off are the basis of a good jump.

Mattos: I use an underhand plant.

VITAL STATISTICS ON WORLD'S GREATEST VAULTERS

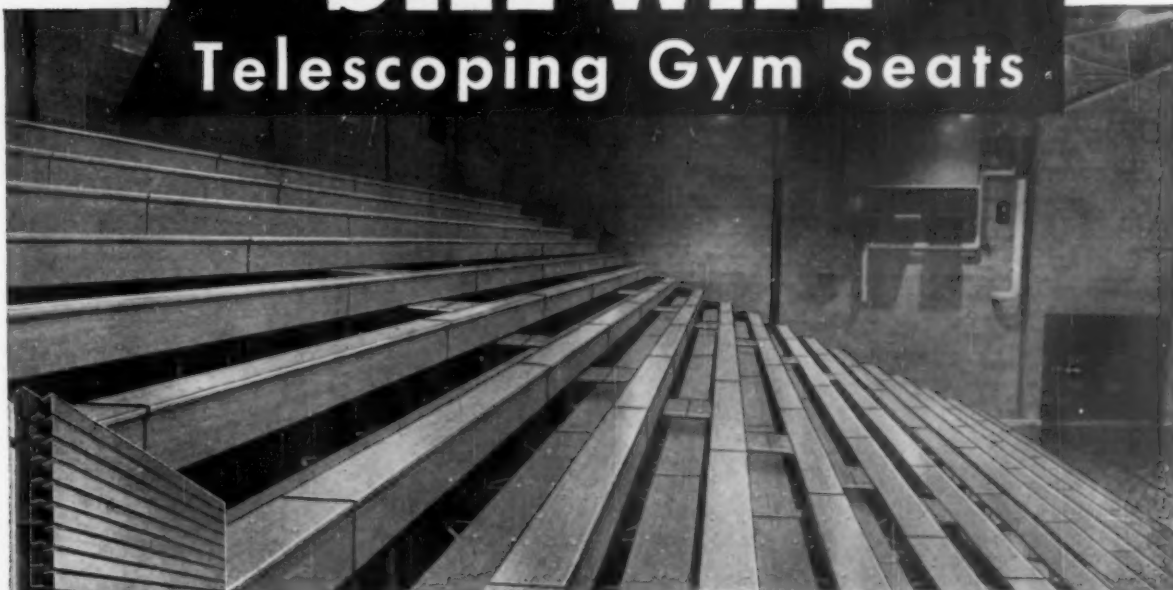
	Best Mark	Age	Age Began	Ht.	Wt.	Best 100 Yds.	Best Grip	Most Confident
Bragg	15-5½	23	14	6-2¾	188	10.2	13-6	13-4
Cooper	15-2½	31	11	6-1	167	9.8	12-9 to 13	13-9
Welbourne	15¼	26	11	5-10	156	10.9	12-7	12-8
Gutowski	15-9¼	22	12	6	145	10.3	13 to 13-6	13-4
Graham	14-8½	23	15	6-4¼	180	10.8	12-8 to 13-7	13-4
Mattos	14-10½	28	13	5-10	170	10.	—	—
Laz	15-3	28	6	6-2	178	10.	—	—
Poucher	14-10	23	10	5-7¼	142	10.6	12-11	12-9
Morris	15-2½	22	10	5-10½	147	10.3	13-2	13
Levack	14-9¼	23	16	5-9	140	10.3	12-11	12-6

PLACEMENT OF STANDARDS FOR GIVEN HEIGHTS (13' TO 15')

Ht.	Bragg	Cooper	Welbourne	Mattos	Gutowski	Laz	Poucher	Morris	Levack
13	1½'	1'3"	1½'	1½'	1-3"	1½'	1-2'	1'	9"
13-6	1½'	1'	1½'	1'	1-3"	1½'	1'	1'	9"
14	1'	1'	1-1'3"	6"	0-3"	1'	1'	1'	9"
14-6	10"	6-8"	10"	6"	1-3"	1'	0-3"	4-6"	9"
15+	1-5"	3"	1-6"	2"	0	9"-1'	0-3"	4-6"	-2'

SAFWAY

Telescoping Gym Seats

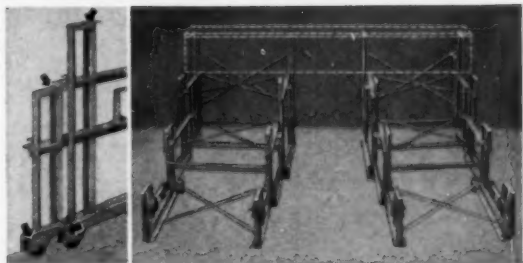


This 18-row installation telescopes easily and accurately

**...assure quick, easy changes
for every gym seating event**

YOUR GYM SEAT SET-UP may be changed several times daily for varied gymnasium events. With frequent opening and closing, *easy operation* of seats is vital to keep your handling time and costs low.

Safway seats roll smoothly—minimize friction—re-



FRICTION MINIMIZED BY ROLLERS; RIGIDITY INSURES STRAIGHT TRACKING

(LEFT) Rollers eliminate metal-to-metal friction at contact points. Top arrows show horizontal rollers in channel under foot boards; bottom arrows show vertical rollers between wheel assemblies.

(RIGHT) Standard 16-ft. section, showing vertical and horizontal bracing. Rigid structure keeps rows always parallel to insure straight, in-line tracking as rows telescope in or out.

duce effort. Complete 16-ft. sections move straight in and out, without binding or cocking. The simple telescoping design eliminates jointed levers and crossarms.

Advanced Safway engineering also gives you these important advantages:

STRONG, SAFE CONSTRUCTION—8 steel columns under every row; uniform load distribution through vertical and horizontal steel bracing; 3 automatic locking devices.

SIMPLE, EFFICIENT DESIGN—Minimum of moving parts. Stable support with extra-long wheel carriages and 8 self-lubricating wheels under each row.

NO POWER EQUIPMENT NEEDED—With binding eliminated and friction minimized, there is no need for costly power equipment.

HANDSOME, FURNITURE-LIKE APPEARANCE—Seat and foot boards have a rich, glossy Golden Oak finish.

Let us help you plan!

Submit your seating requirements for recommendations by experienced Safway engineers. There is no charge for this service. And write today for your free copy of the new Catalog 162.



SAFWAY

STEEL PRODUCTS, INC.
6220 W. State St., Milwaukee 13, Wis.

This has been the best part of my vaulting for some years. But somehow I drifted into a late plant; and this, of course, causes a jerk depending on the lateness. It also causes a "rushed plant." I start the movement two strides out.

Gutowski: I don't realize—or have never thought about—timing the pole plant. However, it's directly over my head upon taking off. When it is not, I usually have a poor vault. I'm satisfied with my present plant.

Laz: Underhand pole plant. Pole is in approximately one step from take-off position.

Poucher: Most of us slip up half the time and shift the pole out in front too late. Morris has a very smooth underhand plant. I prefer this shift; although my shift is better described as side arm. I feel it's most important to keep the pole in close to the body during the shift. After I reach top speed, I gradually begin lowering the pole to save time in the shift.

Morris: Last year I was using a combination of an underhand and overhand plant. However, I'm changing more in favor of the overhand plant. I'm not satisfied with my plant because I don't get what I want (i.e., a smooth take-off with my take-off foot back behind my hands).

Levack: My plant starts on the next to the last stride before take-off. This is too late, and I'm going to start sooner. Next year I intend to use an underhand pole plant.

6. Do you accentuate the foot stamp or spring in the take-off? Explain what you do with the lead leg.

Bragg: I do not accentuate. I try to drive this leg forward so that I may get my legs in front of the pole before I pull.

Cooper: I accentuate the heel-toe rock. I drive the lead leg up with the knee flexed.

Welbourne: I do not accentuate the foot stamp or spring in the take-off. I only concentrate on driving into the box and off the ground. The lead leg continues forward as in another stride. A jumper should run off the ground with a forceful drive—forward, then upward. I believe all good vaulters do the same thing but express it in a different way.

Mattos: No, I do not consciously stamp my foot in the take-off. However, I do work very hard at high jumping—not necessarily for height but for spring and lift. In the vaulting, I think of a run that never stops, just changes direction. I believe in running off the ground.

Gutowski: I do not accentuate the foot stamp; however, I do spring off my take-off foot. On taking off, my lead leg punches forward then drops and the left foot catches up. From here, both bend again. It's a sort of double-action affair.

Laz: No emphasis on stamp, but hard drive at take-off. Like a broad jumper. Right knee comes up hard and keeps going.

Poucher: This has been one of the

THE 10 MOST COMMON FAULTS IN POLE VAULTING

1. Vaulter uses too much speed on runway in proportion to control he's able to exercise in vault itself.

2. Pole plant is not smooth and usually is too late. There's too much overhead action in jabbing pole into box and a failure to keep pole close to body when bringing it forward. Pole must be firmly planted before last step has been completed; this requires throwing pole out in front of jumper at take-off.

3. Vaulter lacks determination at box; i.e., lacks positiveness in actions. Vaulter should "get mad" at box. Many good vaulters run up very powerfully, then let down instead of just relaxing at take-off. Plant and take-off are 50% of any successful effort.

4. Failure to drive forward enough at take-off. Athlete may try to jump straight up. Swing and take-off drive give pole speed. Action of lead leg may be faulty. When running fast at low heights, there may be too much forward thrust of lead leg. At high heights, when swing must be longer, there may be too little forward carry. Foot stamp may lack emphasis.

5. Vaulter tends to pick up legs part-way, then throw them out in a forward direction in turn. Doesn't bring legs in all way toward chest and fails to rock back hard on pole. Common fault is to pull pole back near armpit instead of keeping it near hip.

6. At peak heights, vaulter turns over too soon while still rising vertically, thus killing lift since he'll fly into bar. Turn must be delayed at higher heights, but must always be very fast. Remember, the higher the bar, the more time is available to work.

7. In going up to bar, vaulter fails to punch lead leg over bar. Tries to depend upon run momentum and swing to elevate hips instead of using driving action.

8. Vaulter tries to cross bar rather than rise in front of it. He must never try to go over bar. If timing is correct, pole will bring him to bar.

9. Athlete fails to finish vault. Gets careless over bar after a perfect jump. Lets hips or legs drop into bar or fails to lift arms. Vault is finished when you're sitting in pit.

10. Because of availability of fabricated steel and glass poles, athlete tries to adapt form to pole which happens to be available. They usually use too rigid a pole, which hurries timing excessively. Slow runners and long swing-up jumpers need flexible pole. Otherwise swing is too fast and pull-up becomes more difficult. This is particularly true with high school and inexperienced college vaulters.

main points of contention among the best vaulters for several years. I think that the vaulter who doesn't make a conscious effort to slam down the take-off foot, driving up and out as hard as possible, isn't realizing his full potential. Every vaulter jumps off his foot whether they admit it or not, but until they're convinced that it's probably one of the three most important aspects of the vault, they'll continue to miss at great heights—fellows who have everything like Ron Morris and Bobby Smith, neither of whom will place any emphasis upon the jump off the runway. It's important to remember that when the emphasis is placed on the drive-off, the vaulter must be in perfect balance. I prefer to have the lead leg in front of the body, leading the swing, and let the hips drag a little. I don't believe in completely eliminating the hip drag, but this is a highly technical matter and should not bother the beginner. I hold this position until I contact the pole with my chest, and then I abandon the "Richards style" for your theory of pulling in the knees and rocking back as far as possible,

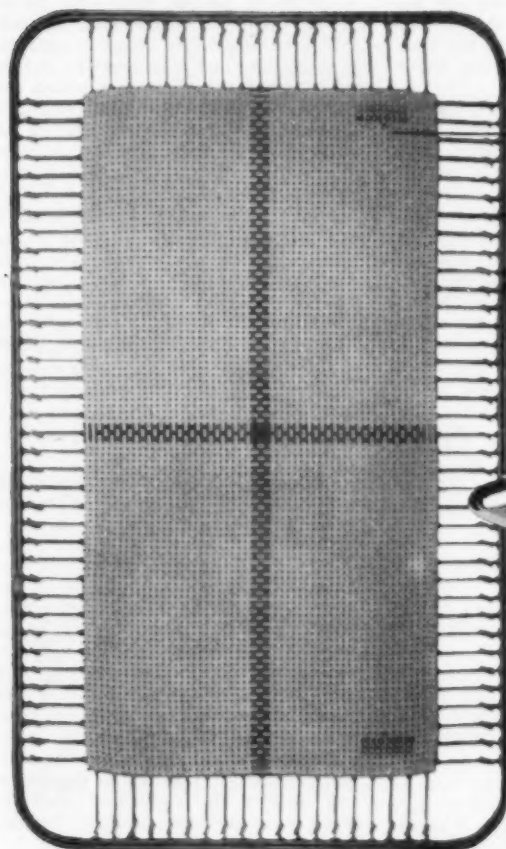
driving the right foot up along the pole. I was jumping in a bad crosswind on a slow, sandy runway last spring and missed the pit on my first two jumps. By merely concentrating on putting the pole out in front of me and jumping hard up into it, I cleared 14'8¾". I lose momentum at the top of the vaults if I do not jump. (I worked with Richards one time last year this way.)

Morris: I don't accentuate the foot stamp or spring. I try to run through the pit. I think by doing this and by staying down as long as possible, the swing is delayed. I try to straighten my lead leg. This seems to accentuate the swing and delay the jump.

Levack: I jump off the ground at the take-off. The lead leg is thrust forward and upward as hard as possible.

7. How do you time your pull and turn? Do you use any special action of the legs, hips, arms or head to help you here?

Bragg: This is the phase we worked on during my junior year and I started developing rather well, doing my best



Double rail of welded high-grade steel tubing. Prevents shifting in the bias. Only Nissen has it.

Woven nylon web bed, triple-stitched under 2 tons tension. Precision loom-woven marking.

Nissen's exclusive adjustable Trampoline cables. 12" double strength rubber cables with eye hooks at both ends permit adjustment and easy assembly and disassembly.

Nissen Trampoline Hinge—drop-forged, advanced design, safest, quickest folding.



Exclusive V-type leg and end support construction permits completely clear area under bed yet provides strong cross support members for extra sturdiness.

Nissen Trampolines* bounce better, longer

When you buy equipment you want the very best you can buy. Equipment that will keep its original strength and springiness. You get the best when you buy a Nissen Trampoline. A Trampoline that, very simply, bounces better longer because it is better designed, better constructed. Only a Nissen has a double rail frame of high grade steel tubing. Only a Nissen has V-type leg and end support construction that leaves the area under the bed free without sacrificing strength and rigidity. And only a Nissen woven nylon bed is triple stitched under two tons of pressure.

These are a few of the reasons why Nissen Trampolines enjoy world-wide acceptance,

are used in international and intercollegiate competitions. You may get by with an imitation, but you'll be happier now and for years to come with a Nissen. Years-ahead Nissen Trampolines bounce better longer, give a quicker lift.

Champion Style—flashfolds. Nylon web bed. Frame 9' x 15'.

Goliath—flashfolds. Nylon web bed. Frame 10' x 17'.

A complete line of Trampolines sold and serviced the world over.

*If it isn't a Nissen it isn't a Trampoline**

*Reg. U.S. Patent Office

See your sporting goods dealer or write to—

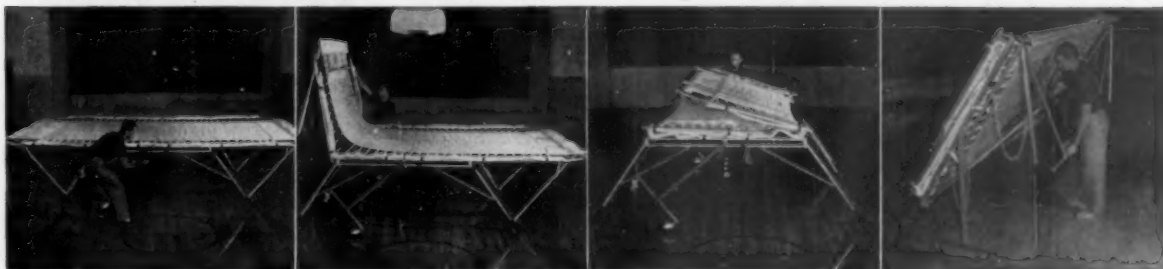
NISSEN

TRAMPOLINE COMPANY

200 A Ave. N.W., Cedar Rapids, Iowa

NISSEN TRAMPOLINE COMPANY, LTD.
Hainault Works, Chadwell Heath,
Romford, Essex, England
NISSEN TRAMPOLINE OF CANADA LTD.
8 Colborne St., Toronto 1, Ontario

and it flashfolds in seconds for quick and easy storage



jump of 15'5¼", but I ran into a pack of trouble and was unable to vault at times. My swing is a little shorter than other vaulters because of my height. However, I feel that in time I'll develop a longer swing which will be more profitable to me. I try to swing out, keeping as near to the pole as possible.

Welbourne: I swing from my hand-grip on the pole, while Mattos seems to swing with it. My legs and hips are starting up just as I reach the pole, whereas Mattos differs in that. With his underhand shift, he rides up along the pole. Knees and hips should rock back automatically. By pushing the pole up more on the take-off, I get a better swing. It's easier to correct the run, plant and shift than the timing of the swing.

Mattos: I have a relatively fast swing, but not as long as it could be. I can control the length of it to a degree by the length of time I push upward and outward on the pole as I ascend. The pull starts after the push ends. (George is saying here that he pushes his pole up on the take-off, coordinated with the underhand shift and leg lift and then catches up to it.) You may say my vault is more of a push-pull than a pull-push.

Gutowski: I have a tendency to have my right knee drift outward and I don't pull it over the left shoulder where it should be. However, I rock way back on the pole at this point and I seem to get better leverage because my arms are more extended when I begin the pull.

Laz: Both knees are flexed at all times—never straight. Emphasis is on bringing knees into the chest.

Poucher: My tendency has always been to turn over too soon. In these instances, there's a lack of pull and flattening out in the turn. This I find happens with many young vaulters. I tend to think of this action as letting my buttocks rise above the shoulders and pulling the knees in toward the pole before throwing the head back and pulling. The closer the knees the better. (You taught me all of this, Dick!) In practice, I work for a long, slow swing with the standards way back—about two feet. It is still excellent practice for any vaulter, irrespective of the height he can jump. I like to practice with the bar back.

Morris: I've been trying to use my head at this time in order to keep my feet up so that they won't hit the bar off. By throwing my head back and looking above the crossbar, I rock the shoulders back and keep my feet up.

Levack: I try to throw my chest forward into the pole during the swing, accompanied by a flexion in the hips. Forward and upward is the action I try to simulate.

8. Are you conscious of the swing-up position in the vault? Explain!

Bragg: I'm not as conscious of the swing-up as I should be, but I will be now that I have a strong pole to work

on. I like to get on my back and pull straight up the pole. My coaches claim that this is the best part of my vault—my body-pole relationship before the pull-up.

Welbourne: The only time you can be conscious of the swing-up is when you feel a smooth, free, easy vault. I'm conscious of the swing whenever I feel that my arms are free to use, to pull, rather than be tied up. I like to be in a rather stretch position along or coming into the pole. A stretched muscle reacts better, of course.

Cooper: Yes, with emphasis on the head-back and legs-up position.

Mattos: I used to be. However, now I don't actually think of the swing position except for the fact that I push up and outward on the pole.

Laz: Knees should begin coming up as pull begins. Body mildly extended during the swing, bring knees in "hard," begin pull and never quit pulling; follow through all the way.

Poucher: I'm conscious of the swing-up, especially as to the position of the knees so that they don't drop the feet into the bar. I like the knees in and the pole about four inches in front of the armpit.

Morris: I like to get in position with the hips almost level with my shoulders before I pull. With a quick pull-push motion from this position, the feet will continue to go up.

Levack: I delay the pull as long as I can. I try to elevate the legs as high as possible before the pull. I never think about the turn, as it comes very naturally. This may be because I'm so small and light.

THIS is the first of two articles delineating the finer points of pole vaulting, as amassed by Dr. Richard V. Ganslen, recognized as the greatest vaulting authority in the world. A former national champion and ex-field coach at the U. of Illinois, his fabulous studies on the mechanics and techniques of the event are required reading in every corner of the globe. His lifetime of study in the field is compounded into his book, "Mechanics of the Pole Vault," now being used in 40 countries! For details on this superb manual, refer to the advertisement on page 64.

9. How do you time your pull-up and turn?

Bragg: I try to pull straight through my hands while lifting my hips as high as possible and getting them near the pole.

Cooper: The turn is executed when the pull is completed and starting the push by looking over the left shoulder. Slight cross-kick helps it.

Welbourne: The higher in the vault we get, the less we know. The pull-up

is timed, of course, with your swing. As you swing forward along the pole, the force of gravity tends to pull you forward and out. You react by pulling back into the rock-back position and the pull is down the pole. The turn is initiated by the uneven grip as you roll over the hands. The feet and legs should be above the head and starting the scissors kick.

Mattos: At present, I don't think of any particular action as long as my plant is correct. In college, to help my pull-up and turn position, I worked on my roll-back and head-back action. Then I combined this with my left leg drive to the right, upward.

Laz: I stay on my back as long as I can force myself to. I never try to turn because that will happen anyhow. A vaulter must turn when his body passes his hand-hold.

Poucher: I don't delay the pull any longer than my momentum allows me to. As long as a vaulter's momentum is carrying him well, he doesn't need to either pull or turn over. When the initial momentum from the run and jump begin to wane, then it's necessary to pull and turn quickly or "stall out." I think that the quicker the vaulter can get in a position to pull, the better—provided he has left enough time to allow the pole to come to the vertical. The only special action I use is a violent kicking of the right foot upward, throwing the head back and tucking the right foot back directly over the body to keep the motion upward instead of outward.

Morris: I try to get a full hip swing. Staying down as long as possible and delaying the pull, I swing my legs over the bar.

Levack: I kick the legs up over the bar. This action coincides with the pull. I've found that if my legs are high, my lift is upward. If my legs aren't high enough, my direction of flight is horizontal.

10. Are you conscious of kicking the legs up over the cross-bar with the pull-up?

Bragg: I'm not too conscious of my legs as I am of my hips, although I try to keep my feet at the level of my hips and above by getting a good pre-pull position with relation to the pole, so I can get a good lifting effort.

Cooper: Keep the feet up during the push-off. Try to do a hand-stand on the pole the same as starting a backward extended roll. I get a good vertical lift by looking above the bar. The pull and swing must be well-timed.

Welbourne: The rock-back is used as a means of controlling the height of the swing. You rock back long for the higher jumps, while at lower heights, there's but a slight tuck. The body is laid along the pole, which is the direction of the pull.

Mattos: I'm not conscious of the leg kick; it would be described better as a leg drive. The direction of flight as I see it depends on three things: (a)

(Concluded on page 43)



**You play it safe when
your boys play
with Spalding!**

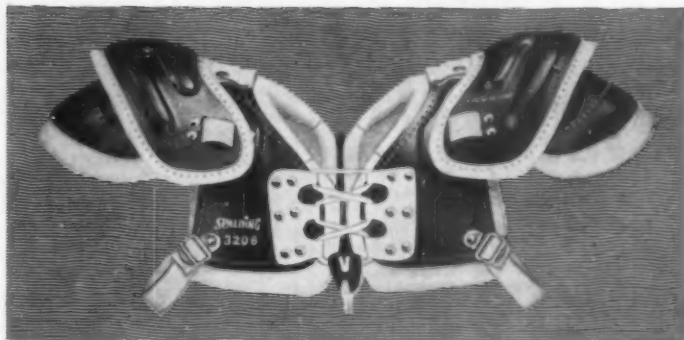


1.

Don't let unnecessary injuries break up a winning combination next fall.

This year, as always, famous, trusted Spalding football equipment combines maximum safety with truly advanced design and incredible durability.

Again, satisfaction is assured. For like all Spalding merchandise, Spalding football equipment is guaranteed *unconditionally*.



2.

1. One of Spalding's Finest Helmets!

One piece molded rubber and plastic shell. "No-Shock" vinyl and foam rubber padding in crown. New snap-out ear pad feature. Wide choice of solid colors. Special designs available. (No. 100)

2. Top Quality Shoulder Pads! Extra large size, heavy red molded fibre. "No-Shock" vinyl padding in caps, epaulets and body of pads. Cream leather neck binding, hinges of heavy white webbing. Oversize model also available. (No. 3206)

3. Feather-weight Game Shoes. Top quality yellow-back Kangaroo uppers, dacron vamp linings. Full bend outsoles, separate heel tap. Super flexible, soft toe shoe with hex base, steel-tipped nylon cleats. (Ber Feather-Weight)



3.

SPALDING
sets the pace in sports

DOWMETAL Crossbars

These triangular hollow bars are the truest, most practical, longest lasting crossbars on the market.

- Will last three years or longer with proper care.
- Possess 2" to 6" less sag than wooden or cane poles.
- Uniform all the way across.
- Bends back easily when landed upon. No sharp edges.
- Metal is patented magnesium alloy especially suited to a great deal of bending.

WEIGHT AND PRICE

12' (jumping)	2.0 lbs.	\$5.95
14' (jumping)	2.3 lbs.	6.70
16' (vaulting)	2.6 lbs.	7.45
18' (vaulting)	3.0 lbs.	8.20

Transportation charges extra

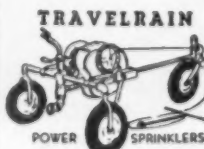
Write for name of dealer nearest to you.

K. & P. Athletic Co.

1115 Jerome St., Midland, Mich.

AUTOMATIC IRRIGATION

"Set It and Forget It"



POWER SPRINKLERS

Inexpensive—Designed for Athletic Fields.

Waters areas up to 100 x 600 ft. in one setting. Only 10 minutes to set or removal. Pulls itself along thru winding up a steel cable—Water Powered—Shuts off water automatically.

Write for information and free trial offer

TRAVELRAIN

363 N. Canon Drive, Beverly Hills, California
Established 1935

**Make Yourself
HEARD!...**

without KILLING
your voice

Portable self-contained megaphone... amplifies your voice 1000 times.

**AUDIO
HAILER**

Write: AUDIO EQUIPMENT CO., INC.
GREAT NECK, N. Y.

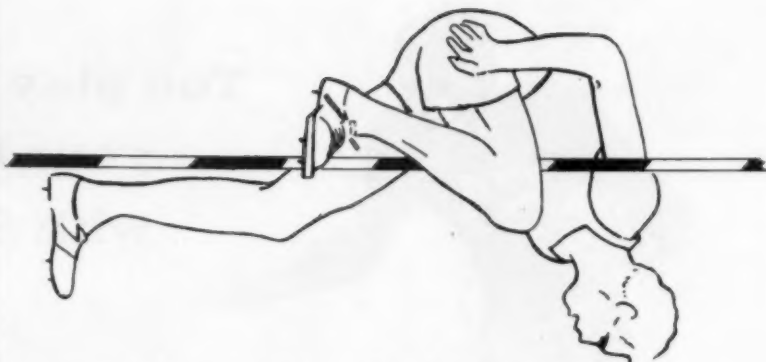


FIG. 9: Stepanov using a modified Nilsson form over the bar.

Russian-Style High Jumping

(Continued from page 11)

Up to about 1925, all high jumpers wore a special field event shoe with a full $\frac{1}{4}$ inch heel, such as is presently worn by javelin throwers and many shot-putters. (See Figs. 3A and 4A.) By changing to ordinary sprinting shoes (Figs. 3B and 4B), the body weight naturally settled back and thereby increased the take-off angle. Heel bruises became a problem, but were eventually eliminated by a thin hard plastic heel-cup which raised the heel only about $\frac{1}{8}$ ".

The "new" jumping shoe used by Stepanov is merely an extension of this basic idea. Incidentally, it isn't an exclusively Russian invention. Armas Valste, head track and field coach for Finland, told the writer that Scandinavian jumpers have been using such a shoe for several years, in fact used them in the Melbourne Olympic Games!

The argument behind their invention is that since the heel cannot be lowered further, the sole of the foot must be raised. (See Fig. 4C.) In other words, an inclined plane must be built into the shoe. Such a plane is comparable in principle to the common inclined board used for certain gymnastic exercises and from which an Illinois gymnast some two years ago was able to clear over 8 feet.

The sole of the shoe is said to be about an inch thick of lightweight rubber. Observe Fig. 4C or put an inch board or book under the sole of your own foot. Feel the way in which your body weight settles back and imagine the potential for braking against horizontal speed and for its conversion upward.

Is this shoe illegal? Not at present writing, simply because present rules say nothing at all relative to

the thickness or shape of a jumping shoe.

Should it be declared illegal? Careful consideration makes it clear that just as with the Held javelin, some precise specification must be made; in this case, as to the exact thickness of the sole.

A principle has been in force for years that in all field events, no special mechanical aids may be used. This specially thickened sole is obviously such an aid. It's so obvious in fact that, in the writer's conversations with various coaches and high jumpers and even shoe manufacturers over the past 15 years, there has been agreement that such a shoe would be an advantage but that its introduction would certainly lead to a change in the rules and to disqualification.

But apart from the shoe, what kind of straddle form are the Russians jumping? One would expect them to copy world's champion Dumas with his slow run, his vertical take-off, his beautiful straight lead leg, and extended body while over the bar (Fig. 5).

But this is not the case. They are apparently copying the style of Nilsson of Sweden (Fig. 6), with his long run, close take-off, and quickly lowered head beyond the bar. The reason for this could be simply that they've had frequent opportunity to watch Nilsson both in and outside of Russia. But there could be other more cogent reasons.

We've already noted the speed with which they approach the bar. Coach Valste has observed that their take-off is close to the bar, and we know they're jumping at least 6 inches higher than their heads, even when they're not wearing the special shoe. We can there-

Jim Crowley, Pennsylvania State Boxing Commissioner



Science Scores Again!
...this time with

Cyclo-Massage[®]

to help in the treatment of athletic injuries

Jim Crowley, Pennsylvania State Boxing Commissioner and one time member of Notre Dame's far-famed "Four Horsemen," speaks his mind on the need for modernizing our approach to the very real problem of handling athletic injuries.

"We'll never call on science to kick that extra point or deliver the knock-out punch," says Jim Crowley, "but athletic trainers, coaches, and every type of pro in the sports world can now avail themselves of a truly amazing invention that often helps rather decisively in the treatment of injuries—particularly bruises, strains and certain types of sprains. In fact, some trainers using CYCLO-MASSAGE report that this 'scientific helper' actually cuts recovery time from injuries as much as 50%."

WHAT IS CYCLO-MASSAGE®?

Cyclo-Massage is an incredibly gentle yet deeply penetrating massage action which, when combined with soothing, controlled heat, helps increase blood circulation in the area of application so effectively that it quickly helps reduce stiffness and pain. Complete penetration of both the soft tissues and bony structure is achieved through a complex three-way action—vertical, cyclical and hori-

zontal—that actually *radiates* gentle, soothing motion wherever applied.

WHAT ELSE DOES CYCLO-MASSAGE® ACCOMPLISH?

Cyclo-Massage has four other plus benefits for athletes

- (1) *helps induce peaceful, natural sleep in tense athletes*
- (2) *helps relieve pre-game nervous and muscular tensions*
- (3) *helps to overcome excessive fatigue attributable to muscular activity*
- (4) *helps relax sore, taut muscles.*



CYCLOTHERAPY INCORPORATED New York 21, N. Y.

© 1958 Niagara Therapy Mfg. Corp.

HOW TO GET ALL THE FACTS... WITHOUT COST OR OBLIGATION

Various types of Cyclo-Massage training tables as well as portable units are available for use at headquarters and while traveling. To obtain information on these various conditioning appliances simply fill in and mail the coupon.

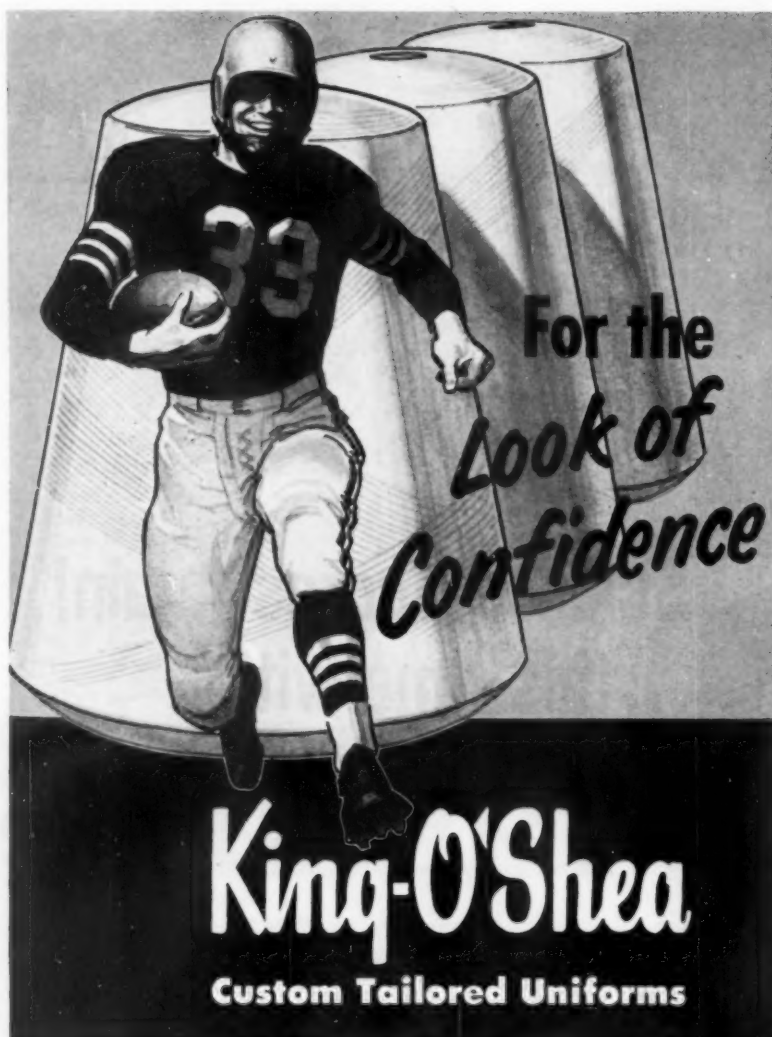
Cyclotherapy, Inc.
Dept. SC-258
11 East 68th St., New York 21, N. Y.

Please mail catalog and price list on
Cyclo-Massage equipment.

Name.....

Address.....

Hear about Niagara Cyclo-Massage on
ARTHUR GODFREY TIME, CBS Radio Network.
See your local paper for time and station.



**For the
Look of
Confidence**

King-O'Shea
Custom Tailored Uniforms

The look of a King-O'Shea dressed team is classic in appearance and design. Their uniforms are tailored for every move in football.

The look of a King-O'Shea dressed team is a look—a *feel* of confidence. They know they're dressed the best and they play that way.

One pant detail among many: the proper placement of pads and pad pockets. They're always in correct position regardless of size 32 short, 36XL, or what-have-you. A King-O'Shea Custom Tailored Uniform doesn't fit just anybody—it fits Mr. Somebody—and fits him exactly.

That's why the coach who wants a King-O'Shea dressed team plans ahead, orders early.

King-O'Shea CUSTOM BUILT ATHLETIC EQUIPMENT
River Grove, Illinois

fore be certain they're jumping almost vertically as they leave the ground.

When a close take-off is combined with such high heights, it's mechanically impossible to do anything else except jump vertically. This fact is of primary importance.

We have long admired the straight lead leg of Les Steers and Charlie Dumas (Fig. 7). But Nilsson argues that he can throw his bent lead leg more quickly and therefore just as forcefully as can Dumas (Fig. 8). Furthermore, being shortened, it permits him to take off within 18 inches of the line of the crossbar, a certain guarantee against diving as applied to take-off.

Nilsson also argues that his economy of clearance is more efficient than Dumas'. By dropping the head and arms down over the bar as quickly and completely as possible, his center of weight never rises as high as the height of the bar (Fig. 6). One is reminded of the form of Gil Cruter, U. of Colorado, 1936, 6' 8 $\frac{3}{4}$ ".

The form of Stepanov (Fig. 9), then seems to be consistent with each of the essentials of a mechanically sound style: good usable momentum, a close take-off which drives the body upward close to the vertical, a most efficient clearance, and—most important of all from both a success and a mechanics standpoint—the ability to jump well over one's head.

In summary, it seems clear that that Russian challenge in the high jump is far more than a thickened sole in a track shoe which can easily be reduced by passing a new rule. We would do well to re-consider our whole program. If we do, there'll be some changes made.

(Ed note: As this issue went to press, Tage Ericson, president of the Swedish Athletic Assn., announced that the elevated high jumping shoe will be formally banned at the next meeting of the International Amateur Athletic Federation and will thus become illegal.)

ONE of the country's greatest track coaches while at Michigan and Pennsylvania, Ken Doherty recently retired to devote full time to directing the Penn Relays. Author of probably the greatest track text extant, Ken's latest venture is a marvelous series of illustrated coaching aids, "Track and Field Movies on Paper." For full details, see advertisement on page 54.

Good Sportsmanship

(Continued from page 26)

A few simple rules such as these and a careful explanation of the "Do's and Don'ts" of the contest at student-body rallies (by student-body officers and yell leaders) keep the situation well in hand.

The results of each sportsmanship contest between schools are reported to the League Secretary on a win-loss basis. The school with the highest number of wins is declared winner of the contest and receives the coveted Sportsmanship Trophy at the end of the season. In case of a tie, the rules state that the school with the greatest total points shall be declared the winner.

It's interesting to note that frequently the school on the losing end of the game score is the winner on the sportsmanship rating sheet. The temptation to "give it all up" when on the short end of the game score can be subdued by a few words on the part of the yell leaders to "keep up the good sportsmanship."

The same holds true as far as the season championship is concerned.

A competitive program such as this, given wide publicity and backing by the student leaders and the rally committee, constitutes a great stride toward the betterment of inter-school relations.

Vaulting Techniques

(Continued from page 38)

the thrust of the pole in the plant, (b) roll-back of torso combined with tuck, (c) roll-back of head beyond roll-back. The roll-back allows the feet to get into a vertical position. The head back gets them even straighter.

Laz: Swing the legs up. I ignore bar completely. Action of the legs is 80% of a good vault. After force is accumulated in the swing, bring knees in and shorten moment arm, thereby increasing angular acceleration and force; also helps to change direction of the force.

Poucher: Pulling knees into the pole gets good vertical lift. Keep pole well to center of the body. (Many vaulters, particularly beginners, try to get the pole back under the armpit.) Kick right foot up. I imagine my short arms are a handicap for a good handstand. However, I have managed 2'8" with both hands on the pole. I can only stretch 21 inches between my top hand and my chest. The biggest fault of vaulters is allowing the feet to hang out away from the pole and allowing the pole to get back up into the arm-pit. You can't really go up and do either of these.

It's Here at Last . . . Especially for Schools



David Woodall, Georgia Tech. student, shows how easily UniMac operates.

Coaches Acclaim Heavy Duty UniMac for Laundering All Athletic Washables

Because . . .

UniMac, the revolutionary Washer-extractor combination, gives fast, economical, trouble-free performance. Washes and extracts up to 120 lbs. per hour.

UniMac's on-the-spot speed

- Saves on costly commercial laundry service—no delays, no counting, no checking, no losses!
- Makes possible a minimum inventory of washables!
- Prolongs life of washables because sweat and dirt are immediately removed by gentle, thorough wash-rinse action!
- Assures sanitation, eliminates the problems and health hazards of storing sweat-soaked equipment!

UniMac is practical equipment. Neither large and expensive nor small and inadequate. Comes fully equipped with heavy duty electrical and plumbing connections. Easy and inexpensive to install, maintain and operate.

Get all the facts—WRITE TODAY, Dept. S-28

UniMac
Company

723 Ponce de Leon Place, N. E. • Atlanta 6, Georgia

TRACK RIBBONS



Standard
and
De-Luxe
Lines
Prices
Start at 10¢

Write
for
sample
ribbon
and
order
blanks

Sporting Goods Stores calling on
High Schools, request proposition.

FREED-PRINT

1005 North Wayne Street
North Manchester, Indiana



Dept. 5, Box 1065, New London, Conn.

SPORTS FILM SERVICE 7 DAYS A WEEK

16 mm. B&W Film Processing
• Reversal • Positive • Negative
Your film processed and returned
within 24 hours . . . on reels ready
for projection.

Duplicate prints made from positive or
negative film—8mm. or 16mm. . . B&W or
Kodachrome. Also reductions (8mm. from
16mm.). Enlargements (16mm. from 8mm.)

For tops in service and quality
send your next films to

CINE-O-TONE

624½ So. Michigan Ave., Chicago 5, Ill.

Complete Baseball Signal System

(Continued from page 7)

ball. When nothing is called, a breaking pitch is indicated.

The Thumb Series. The thumb is the key to the signal, with the catcher's hand flat in the crotch. When the thumb is turned in to the palm of the hand, it's a fast ball—whether one, two, three or four fingers show. If the thumb shows out of the palm and is steady, it's a breaking pitch. If the thumb is wiggled, a change of pace; and if the thumb is pointed toward the pitcher and not flat in the crotch, a pitch-out.

The Hand Series. When the right hand is placed tight in the crotch, it's a fast ball; when placed tight against the right thigh and close to the crotch, a breaking pitch; the hand placed in the crotch and fingers raised two or more times, a change of pace; and the hand placed tight on the right thigh and the fingers raised several times, a pitch-out.

OUTSIDE SIGNALS

Since inside signals are sometimes difficult to see by artificial light, the outside method is in order for night ball. When an outside method is used either at night or in daytime, a switch signal should be added.

The switch is some movement that alters the regular signal and may be given before, after, or at the same time as the regular signal. Examples of simple switch signals include:

Wiggling the gloved hand.
Placing the right hand over the front of the glove.

Placing the right hand on a bar of the mask.

Rubbing the right hand across the chest protector.

Picking up a handful of dust outside the right leg.

A few outside series are:

The Glove Series. The catcher takes his initial squat position with the glove extended over the left knee, thumb of the glove pointing toward the pitcher. This is the fast ball. (For decoy, dummy signals are given inside the crotch.) Now, a switch (placing the right hand over the front of the glove) changes the pitch to a curved ball.

Dropping the glove downward over the knee so the thumb of the glove points toward the ground is the outside signal for a breaking pitch. Now, the same switch changes the pitch to a fast ball.

Dropping the glove down and showing the back is the pitch-out. The switch signal reverses the change of pace to a pitch-out, and vice versa.

The switch need only be used on occasion—the straight signal being adequate. Only when the catcher feels

the opposition has an idea the glove series is being used should he resort to the switch.

The switch signal can be changed to any of the others when deemed necessary. This can be done between innings or by conference during the inning.

The Knee Series. In this series, the catcher places the right hand on top of the right knee, followed by dummy inside signals. This is the fast ball. If needed, the switch follows.

When the right hand is placed inside the right knee, it's a breaking pitch. If the first finger is raised as the hand is placed inside the right knee, it's a change-up; and if the clenched fist is placed inside the right knee, it's a pitch-out.

The Head Series. Looking directly at the pitcher, the catcher gives inside dummy signals. The direct look indicates the fast ball. Looking down under the same conditions calls for a breaking pitch. Taking a look to the left, a change of pace; and looking to the right, a pitch-out. Again a switch can be used when necessary.

When a catcher has a tendency to frequently adjust his mask, the following is a simple series:

Give the inside dummy series followed by the adjustment of the mask. The fingers pointing upward and on the front of the mask for the fast ball; the fingers placed crosswise is the breaking pitch; the fingers placed on the right side of the mask, the change of pace; and when placed on the left side, the pitch-out.

OFFENSIVE SIGNALS

Offensive signals are usually given with some natural movement of the body, part of the body, or position of the body. Since the score, inning, call on the batter, number of outs, and the strength and weaknesses of both teams are constantly changing, the coach, base coaches, batters, and runners should be in constant communication. This requires continued practice of the signal system until it becomes routine for all squad members.

Dependent on the experience of the offensive team, the following signals may be given at various times:

1. The hit signal, meaning hit the next pitch if it's to your liking.

2. The take signal, meaning not to offer at the next pitch, even though it's a strike (never used on a two-strike count).

3. The hit-and-run signal, meaning the runner on first or sometimes on second, or runners on both, take off with the pitch. The batter must make every attempt to hit the pitch, preferably on the ground and through an open spot. (A fly ball may result in a double play, since the runners have "gone")

TOPFLIGHT PERFORMANCE

VAULTING
POLES

- TOP PRIORITY ALLOY
- STRONGER THAN STEEL
- SAVES STORAGE SPACE
- SAVES MAINTENANCE

JUMPING
STANDARDS

- CUTS EVENT TIME
- NEW LOW COST
- DESIGNED FOR SAFETY
- NEW NATIONAL RECORD

STARTING
BLOCKS

CROSS
BARS

ALUMINUM TRACK EQUIPMENT

ALUMINUM ATHLETIC EQUIPMENT CO. BOX 145, WYNNEWOOD, PA.

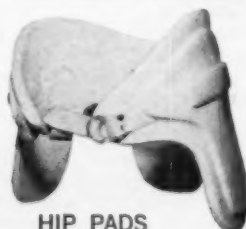
Only **Polvomite** football pads offer you all these **Plus** advantages

- Maximum protection
- Amazingly lightweight
- Low initial cost
- Fits perfectly
- Negligible upkeep
- Weatherproof
- Prevents injuries
- Completely sanitary
- Moisture proof
- Will not cause fatigue



Polvomite is U. S. Rubber shock absorbing **ENSOLITE**® foam with Protection Equipment Company's tough **PEC-10** coating.

Contoured **PEC-10** coated Shoulder Pads with Roll-away neck line.



HIP PADS



THIGH GUARDS



KNEE PADS

Ensolute is a product of The U. S. Rubber Co.

PEC-10 is a Formula of The Protection Equipment Co.

SEE YOUR POLVOMITE DEALER OR WRITE

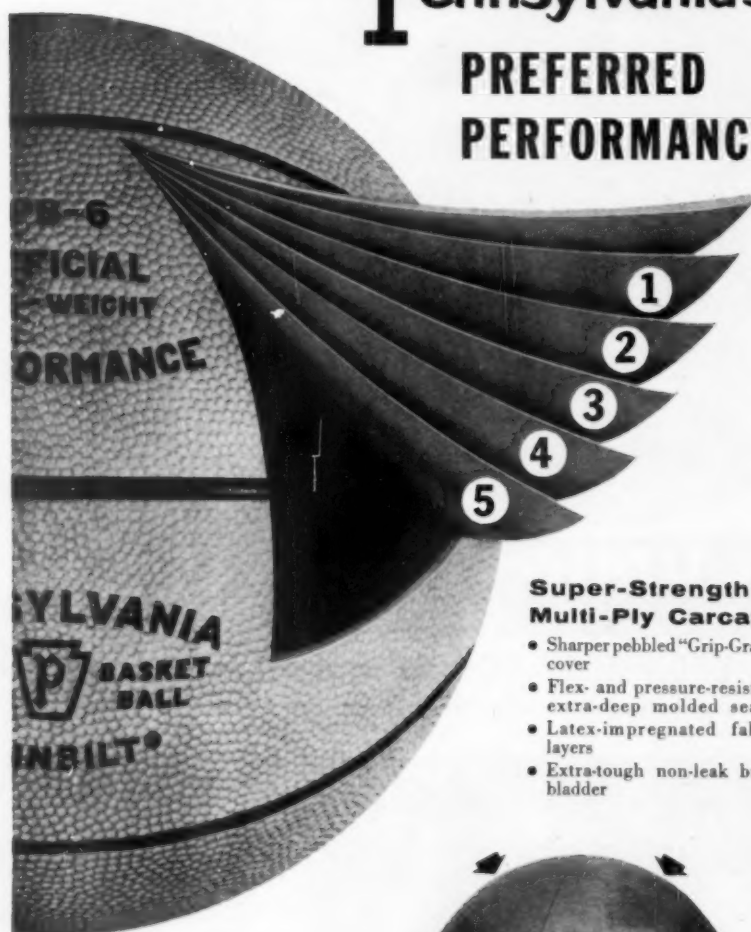
PROTECTION EQUIPMENT COMPANY

HAAS AVENUE
SUNBURY, PA.

ORIGINATORS OF PLASTIC COATED ALL FOAM MATS AND FIBRELESS ALL FOAM SHOULDER PADS

The reasons behind

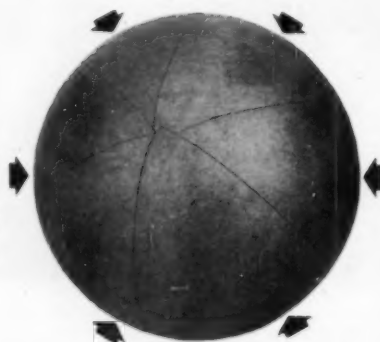
Pennsylvania's PREFERRED PERFORMANCE



Construction features cross-lapped fabric layers, with equal tension at all points. This exclusive Pennsylvania technique, like that used in plywood manufacture, assures maximum carcass strength.

Super-Strength Multi-Ply Carcass

- Sharper pebbled "Grip-Grain" cover
- Flex- and pressure-resistant extra-deep molded seams
- Latex-impregnated fabric layers
- Extra-tough non-leak butyl bladder



With super-strength, cross-lapped carcass and equal tension principle, Pennsylvania basketballs combine top-quality materials and superior craftsmanship—**RESULT**—*Your best buy for every use, from playground to gym class to Varsity court.*



THE GENERAL TIRE & RUBBER COMPANY
PENNSYLVANIA ATHLETIC PRODUCTS DIVISION - AKRON, OHIO

"Preferred for Performance"

with the first move of the pitcher to the plate.) The only pitch the batter doesn't attempt to hit is the one delivered at him or into the ground. Otherwise he offers at the ball, even if he has to throw his bat at it.

4. The sacrifice bunt, meaning bunt the ball only when it's a strike.

5. When the safety squeeze is played, the sacrifice bunt signal can be used. For a straight or suicide squeeze, a separate signal must be given. The batter makes every effort to bunt the next pitch into the ground—the exceptions being a pitch directly at him or into the ground.

6. The steal signal, meaning the runner, if he gets a jump, attempts to steal on the next pitch. An exception exists with runners on first and third. When the defense has a poor throwing catcher, or the runner on first has good speed, he should go on the next pitch regardless. If the runner on third is slow, he shouldn't attempt to score unless conditions are such that he has a good chance to do so.

Various methods are used to give the signals:

1. The coach gives them all from the bench.

2. The coach gives them to the base coaches, who in turn relay them to the batter. (Right-handed batters take the signal from the first-base coach, and left-handed batters from the third-base coach.)

3. A combination of the above. If the offensive team's bench is on the first-base side, the coach gives all signals to a right-handed batter, while the third-base coach relays them to a left-handed batter. When the team occupies the third-base bench, then right-handed batters take the signal from the first-base coach, and left-handed batters from the bench.

4. When a head coach is permitted to be on the coaching lines, he can give all the signals from his position.

As a batter steps into the box, he glances at the coach and the signal is flashed. After the initial pitch, the batter can take his signal as the catcher returns the fall to the pitcher, or as the pitcher takes his signal from the catcher.

Anytime the batter steps out of the box, he's informing the coach that he wants the signal again. It's repeated as he steps in.

If a baserunner is in doubt, he steps on his base, calls time, then adjusts some part of his uniform, asks the call, number of outs, score, etc. The signal is then re-flashed as he stands on the base.

Signals given from a dugout below the level of the ground should be given above the waist; otherwise they may be given either below or above the waist.

Here are a few examples that are easily flashed.

Cap Signals:

1. The hit is always on unless another signal in the series is given.

2. When the right hand touches the side of the cap, it indicates the take.

3. When the right hand touches the bill of the cap, it's the sacrifice bunt.

4. When the left hand touches the side of the cap, it's the hit-and-run.
5. When the left hand touches the bill of the cap, it's the steal.
6. When both hands touch the cap anywhere, it's the squeeze.

Arm Signals:

1. The hit is always on except:
2. When the left hand rubs down on the right arm, this is the take.
3. When the left hand rubs up on the right arm, it's the hit-and-run.
4. When the right hand rubs up on the left arm, it's the sacrifice bunt.
5. When the right hand rubs down on the left arm, it's the steal.
6. And when first one arm and then the other is rubbed downward, it's the squeeze.

Skin-to-Skin Signals:

1. The hit will again be on unless:
2. The left hand touches the face. This is the take.
3. When the right hand touches the face, it's the hit-and-run.
4. When the left touches cloth above the waist, it's the sacrifice.
5. When the right touches cloth above the waist, it's the steal.
6. When both hands are clapped or rubbed together, it's the squeeze.

Knee Series:

When the bench is on ground level, a simple knee series can be used.

1. Open left hand on the left knee, take.
2. Closed left hand on the left knee, hit-and-run.
3. Open right hand on the right knee, sacrifice bunt.
4. Closed right hand on the right knee, steal.
5. Both hands open on both knees, the squeeze.
6. The hit is always on unless any of the above is given.

Leg Series:

1. The right foot crossing the left, legs extended, the bunt.
2. The left foot crossing the right, legs extended, the hit-and-run.
3. The left leg over the right knee, the steal.
4. The right leg over the left knee, the squeeze.
5. Both legs stretched out, the take.
6. The hit is always on except when any of the above is given.

If the base-line coach is relaying for this series:

1. He places his right foot forward for the bunt.
2. He places his left forward for the hit-and-run.
3. He faces the batter and backs away from him for the steal.
4. He walks toward the batter for the squeeze.
5. He stands with feet astraddle for the take.
6. If none of the above is given, the hit is on.

It should be understood that dummy movements should be made after, before, or at the same time the signal is flashed. For example, using No. 1 of the leg series above. As the right foot crosses the left, the left hand may be touched to the cap. Thus the opposition won't know which series is being used.

HODGMAN ATHLETIC CLOTHING

Used and endorsed by leading
teams & athletes



COLORS:

No. 144 Forest Green

No. 140 - No. 149 - No. 150 - No. 159

Navy, Maroon, Royal Blue, Scarlet, Cardinal
Tan, Gold, Green and Black.

NO. 140 LITTLE LEAGUER CAPE

Here's real protection for Little League and Junior Footballers. Has all the big league features and same material as our No. 150.

NO. 140 WEIGHT: 2½ lbs.
SIZE: Large boys size only — for 15 year olds or less, up to 135 lb. weight.

LENGTH: 38" available in other lengths on special order.

LIST PRICE: \$13.35 TEAM PRICE \$9.95

NO. 159 BAND PARKA

A smartly styled parka designed specially for bands. Made like No. 149 with similar design features and same warm, waterproof material. Parka hood has zipper closure which permits hood to fold back to give cape like effect. Hood lining is available in a different standard color than rest of parka for unusual color contrast. Has snap fastener closure and two large patch pockets with flap placed one on each side of front.

NO. 159 WEIGHT: 4 lbs. 2 oz.

SIZES: EXTRA SMALL — Boys and Misses

12-14 — Length 40"

SMALL — Boys and Misses 16-18 —

Length 40"

MEDIUM — Boys 42 — Length 45"

LARGE — Boys 46 — Length 48"

AVAILABLE IN OTHER LENGTHS

ON SPECIAL ORDER

LIST PRICE: \$21.25 BAND PRICE: \$15.95

NO. 150 DELUXE HOODED CAPE

These warm and windproof capes have been designed to get players in and out of games quickly. They are durably made of warm, waterproof, extra strong vat dyed rubberized fabric doubled to a blanket lining material. All seams are double stitched. Raglan shoulders and full cut allow room for pads and provide complete protection for body, knees and seat when player is sitting, kneeling or standing. Garment is held together by fastener at neck and by player keeping hands in specially designed inside pockets as shown in illustration.

NO. 150 SIZE: Large only.

LENGTH: 45 inches. Available in other lengths on special order.

WEIGHT: 3½ lbs.

LIST PRICE: \$15.35 TEAM PRICE \$11.50

NO. 149 FAMOUS SIDELINE PARKA

Specially made to meet the requirements of school, college and professional football squads. These warm and windproof parkas are durably made of extra strong, waterproof vat dyed rubberized fabric doubled to a blanket lining material. All seams are double stitched. Raglan shoulder and full cut to allow ample room for pads. Full skirt so that garment will go under the seat and over the knees when player is seated. Nicked, rust proof buckles in front. Extra large slash pockets placed high to make easily accessible when seated on bench.

NO. 149 SIZES: Medium and Large.

LENGTH: 45 inches. Available in other lengths on

special order.

WEIGHT: 5 lbs.

LIST PRICE: \$19.95 TEAM PRICE \$14.95

SEND FOR COMPLETE CATALOG

HODGMAN RUBBER CO. Framingham, Mass.

79 Madison Avenue
New York, New York

549 West Randolph Street
Chicago 6, Illinois

1355 Market Street
San Francisco 3, California



**safe team play
starts with...**

**fibresless
PECSOLITE gear**

**3.7 TIMES GREATER SHOCK ABSORPTION
... 20 TIMES LESS REBOUND
THAN ORDINARY PADS**

**... unmatched in its ability to absorb and
diffuse blows ... lessens possible injury
to wearer and opponent alike**

- Less Cost Per Service Hour: new coating formula provides surface strength of 2400 P. S. I.
- New Nylon Coil Stitching Reinforcement: for added durability and even greater service life
- No Repugnant Smell
- Will Not Shrink
- Double Reinforcement: at stress points like epaulet
- Lightweight: $\frac{1}{4}$ to $\frac{1}{2}$ less weight than ordinary pads
- Sanitary: cannot transmit infections
- Moisture Resistant: cannot pick up body odors

See Your Pecsolite Dealer for the complete line of Pecsolite shoulder pads, hip pads, thigh guards, knee pads, helmet liners and accessories ... or write Pecsolite for brochure and prices.

PECSOLITE EQUIPMENT CO. Third and Market Sts. Sunbury, Pa.

A dummy may be given first, the foot then crossed, followed by another dummy. In this case, the second move is the signal.

The base coaches should also give dummy signals. Again taking No. 1 of the above series. As the head coach gives the crossed right foot signal and touches his cap with the left hand, the base coach steps forward with his right foot and touches his cap, his face, rubs his hand on his clothing, or uses any other motion desired.

The base coaches must be drilled constantly in order to become proficient in their duties. It's therefore best to choose certain individuals—for example, several players who don't have the physical ability to play regularly, but who are alert and possess good judgment—and use them as permanent base coaches.

FIRST-BASE COACH SIGNALS

1. He gives the signals to the batter when necessary.
2. He helps baserunners as follows:
 - (a) To run hard to first base: He circles the left arm toward right field, his right at his side.
 - (b) To make the turn. The same left arm action but pointing toward second base with the right.
 - (c) To keep going to second. Both hands are pushed out toward second base.
 - (d) To alert the runner at first base when he has a lead for any pick-off or other play that might be made on him. The coach also uses his voice, along with body actions—"run hard," "make the turn," "keep going," "get back," etc.

THIRD-BASE COACH SIGNALS

1. He gives signals to the batter when necessary.
2. He holds the runner up at second if the ball is hit behind him. Both hands are held up above the head, palms facing the runner.
3. He signals the runner to make the turn by facing left field his left arm pointing up, the right making small counter-clockwise circles, or he brings the runner into third base by making large circles with the right arm, dropping his left to his side.

On a fly ball or line drive, the coach helps send the runner back to first by swinging both arms parallel to the ground toward first and in front of the chest. The runner should look for the signal as soon as the ball is hit, providing he himself hasn't located the ball by a quick glance.

4. When the runner comes into third, the base coach signals him to hold up by raising both hands above his head, palms toward the runner.

5. The runner stops on the bag when the coach points to the bag.

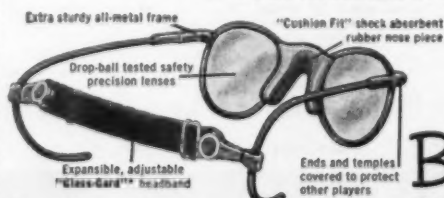
6. The runner slides into the bag when the coach has both hands in front of him, palms down. If the runner is to slide to either side, the coach moves his hands to that side.

7. When the runner is to make the turn, the coach goes toward home as far as permitted, points his right arm up and makes small clockwise circles

Protect those eyes...get

BENSON'S ALL AMERICAN* ATHLETIC GLASSES

- found wherever athletes compete throughout America
- a wise investment in eye safety



For your protection, look for the AA trademark on the lenses of every pair of genuine ALL AMERICAN* Athletic Glasses

See your eye doctor

Benson's

*Copyright

COMPLETE LABORATORIES CONVENIENTLY LOCATED IN UPPER MIDWEST CITIES

with the left; when the runner is to try to score, the circles become full-arm affairs with the right arm dropped to the side.

As the coach gives the signals, he should always place himself so he can easily be seen, and should never forget to give voice instructions at the same time.

With any runners on base, the nearest coach should always keep in constant communication by calling, "you're all right," "stay up," "get back," etc. When runners are on both second and third bases, the third-base coach should concentrate on the runner at second since the runner on third is facing the possible play.

Only when a pick-off at second is in evidence does the first-base coach help out. Then either or both coaches should call "heads up" to alert the runner.

Baseball Check-List

(Continued from page 18)

of 10 can be guided by a coach in which case specific hand signals can be incorporated into the drills.

A third base coach is employed when the runner rounds second and third. In the former case, the runner is both stopped at the bag and waved on. At third base, these two maneuvers are also used, plus pointing toward the bag to indicate that the runner should stop on the bag. When a hands-up stop signal is given, the runner should always turn toward the diamond after he reaches the bag and try to locate the ball.

11. The final drills are concerned with batting and are designed to acquaint players with the techniques of the sacrifice, hitting behind the runner, and the hit and run. In sacrificing, the emphasis is placed on retaining a fairly erect position since high fast balls are usually pitched in such situations.

12. Hitting behind the runner can be done with live pitching or with a batting tee. In the former case, the batter is expected to pick an outside pitch (right-hand batter) and attempt to hit the ball on the ground through the hole at first base. If a tee is employed, it's placed so that the ball rests over the outside edge of the plate.

13. The hit and run is executed similar to drill 12. However, it's best to use live pitching since the runner's break and glance from first can be timed with the pitcher's delivery. In this case, the batter must make an effort to hit the pitch on the ground. When perfectly executed, the ball will skim through the area vacated by the defensive player covering on the runner's break.

SPEED CLEAT

TOUGH LIGHTWEIGHT NYLON

Coaches—Don't burden your players with extra weight—equip your squad with the lightest cleat available for rocket action. Brilliant color selection for quick identification between various units of your squad—Distinguish between game shoes and practice shoes.

- FULL COLOR RANGE—RED, GOLD, WHITE (NATURAL)
- ONLY NYLON CLEAT WITH LOCK-TIGHT TEETH
- LOCKED-IN STEEL TIP AND ALUMINUM THREAD FOR LIGHTNESS

See Your Dealer or Write Direct

OHIO ATHLETIC SPECIALTY CO.
133 BUCKEYE ST. ELYRIA, OHIO



the choice of the 1956 Olympic team should be yours too!

OCEAN Champion

NYLON RACING TRUNKS



Top schools, colleges, clubs and the United States Olympic Committee specify Ocean Champion. Not whim, but a proven record of superiority makes their choice of Ocean Champion almost mandatory.

Stronger tighter weave nylon in Ocean Champion weighs less than two ounces... dries in minutes! Double row stitching throughout prevents curling, insures long life.

SPECIFY OCEAN CHAMPION — Number 65. Available in Black, Royal, Scarlet, Dartmouth Green and Orange. Sizes 22-38. Price \$36.00 per dozen.

© Whittier-Babbcock Adv. Inc., N. Y. C.

3-FOLD IN HALF HERE

THIS IS A SELF-MAILING AD

NO POSTAGE OR ENVELOPE NEEDED!

MAIL NOW FOR FREE CATALOG

Follow instructions and mail today for information on Ocean Champion, and complete FREE Catalog of the Ocean Pool line.

1. FILL OUT COUPON. This is the return address section of Business Reply Form.
2. CUT OUT AD ON THE SOLID LINE to top and side of page. 2-Cut out ad on solid line.
3. FOLD IN HALF ON DASH LINE, marked "3-Fold in half here".
4. FOLD IN HALF ON DOTTED LINE, marked "4-Fold in half here".
5. STAPLE OR SCOTCH TAPE CLOSED.

WE WILL BE PLEASED TO SEND CATALOG TO SCHOOLS, INSTITUTIONS, BUSINESS FIRMS, ETC. Use your official address, no catalogs can be sent to private residences.

OCEAN POOL SUPPLY CO., INC.
155 West 23 Street • New York 11, N. Y.

▼ CUT OUT AD ON SOLID LINE ▼

FIRST CLASS
PERMIT NO. 2848
SEC. 343 P. L. & B.
NEW YORK, N. Y.

BUSINESS REPLY ENVELOPE

No Postage Stamp Necessary if Mailed in the United States.

4¢ POSTAGE WILL BE PAID BY—

OCEAN POOL SUPPLY CO., INC.
155 West 23 Street
New York 11, N. Y.

name _____
organization _____
address _____
city _____ state _____ zone _____

QUARTERBACKS

	Ht.	Wt.	Coach
Jim Bakken (Madison West) Wisc.	5.11	185	Fred Jacoby
Stan Gann (Northside) Atlanta, Ga.	5.8	168	Wayman Creel
Guy Gibbs (Graham) Tex.	6.6	225	Ted Sifton
Jerry Gross (Central) Bay City, Mich.	5.10	164	Elmer Engel
Ron Karlberg (Lewisian) Ida.	6.0	182	Bob Williams
Larry Libertore (Edison) Miami, Fla.	5.10	142	Jim Powell
Leroy Loudermilk (Wilkinsburg) Pa.	5.11	182	Clarke Miller
Jack Norwood (Poly) Baltimore, Md.	5.8	160	Bob Lumsden

HALFBACKS

Paul Allen (Pleasant Grove) Utah	6.0	180	Ned R. Alger
Jim Bargeloh (Parkersburg) W. Va.	5.10	175	Russ Parsons
Tracy Callis (Jefferson) Roanoke, Va.	6.1	185	Rudy Rohrdanz
Mark Chires (Abp. Williams) Brantree, Mass.	6.0	192	Jack Garrity
Jack Collins (Highland Park) Dallas, Tex.	6.1	185	Tugboat Jones
Gary Craig (Poly) Riverside, Calif.	6.0	164	Ben Hammerschmidt
Mike Fitzpatrick (Timon) Buffalo, N. Y.	6.1	188	Joseph Bojak
Bruce Fullerton (Little Rock) Ark.	6.1	185	Wilson Matthews
Paul Goddard (Lincoln) Portland, Ore.	6.0	180	Bob Signer
Dan Griffin (Frederick) Okla.	5.11	178	Dean Wild
Richie Haines (Montclair) N. J.	6.0	190	Clary Anderson
Wendell Harris (Baton Rouge) La.	5.11	183	C. R. Harrison
Bob Ivey (Woodruff) S. C.	5.11	195	Willie L. Varner
Don Kasso (Berkeley) Calif.	6.0	180	Fred Moffett
Bob Nunis (S. F. Austin) Austin, Tex.	5.11	185	Jim Tolbert
Sedric Suggs (B. T. Wash.) Rocky Mount, N. C.	5.8	185	Dave Atkinson

FULLBACKS

Jim Bruno (Agawam) Mass.	185	Harry Leonardini
John Chisak (Central) Scranton, Pa.	6.0	C. J. Robson
Bobby Ferguson (Troy) O.	5.10	Lou Juillerat
John French (Artesia) N. M.	5.11	Reese Smith
Jim Hoosman (East Waterloo) Iowa	6.2	Tony Guzowski
Jim Josephson (Bellarmine) San Jose, Calif.	6.0	John Hanna
Mike Lind (Calumet) Chicago, Ill.	6.0	Ted Zayner
George Telesh (Clifton) N. J.	5.11	Joe Grecco

ENDS

James Bates (Manual Arts) Los Angeles, Calif.	6.2	185	Jim Blewett
James Blair (Highland) Albuquerque, N. M.	6.0	177	Hugh Hackett
Art Brandstatter (East Lansing) Mich.	6.1	195	Vince Carillot
Glenn Cunningham (Bristow) Okla.	6.4	185	Cal Woodworth
Ernie Davis (Elmira Free Academy) N. Y.	6.2	200	Marty Harrigan
Don Desroches (Stephens) Rumford, Me.	6.1	193	Lawrence Hersom
Don Downs (Ensley) Birmingham, Ala.	6.2	185	Bill Harris
Bill Hicks (Little Rock) Ark.	6.1	194	Wilson Matthews

	Ht.	Wt.	Coach
Ken Hokeness (Northfield) Minn.	6.4	210	Annie W. Nelson
Rich Jemenko (Roosevelt) East Chicago, Ind.	6.3	175	Pete Rucinski
Lou Kirouac (Bishop Bradley) Manchester, N. H.	6.3	210	Ed Kissell
Robert Livingston (Los Angeles) Calif.	6.0	180	Harry Edelson
Henry Newton (Raleigh) N. C.	6.2	193	Clyde Walker
Ralph Smith (Brookhaven) Miss.	6.2	188	Jim Moyer

CENTERS (LINEBACKERS)

John Bosley (Green Bank) W. Va.	6.0	230	Kenneth Sims
Frank Brzenk (St. Peter's) Jersey City, N. J.	5.11	194	Bill Cochrane
James Byerly (Crane) Tex.	6.2	225	Dan Anderegg
Pete Case (Decatur) Ga.	6.2	198	Charlie Hall
Leroy Leep (Wichita East) Kans.	6.2	190	Jim Barger
Dave Morgan (Natick) Mass.	6.3	205	Joe Hogue
J. Lynn Smith (Bountiful) Utah	6.0	185	Lloyd N. Hayes
Roger Spurlock (Huntington Central) W. Va.	6.4	254	Johnny Cox
Jack Wallace (Middletown) O.	6.4	220	Glenn Ellison
Roger Whitley (Albamarle) N. C.	6.0	215	Toby Webb

GUARDS

Orville Bolinger (Muskogee) Okla.	5.8	170	Paul Young
Greg Divis (St. Mary's) St. Louis, Mo.	5.10	228	Floyd Lahay
Tom Downham (Marquette) Wisc.	6.1	215	Marlon Batterman
Ben Follows (Ames) Iowa	6.1	193	Ken Wells
Tom Gue (Orangeburg) S. C.	5.10	180	W. J. Clark
Wayne Magnusson (West Phoenix) Ariz.	6.1	235	Vern Braasch
Gene Mariutto (Miami Senior) Fla.	5.10	185	Ottis Maoney
Owensby Pearson (South) Akron, Ohio	6.1	170	William Hawkins
Ken Spires (Lawrence) Mass.	6.2	205	Eddie Buckley
Bill White (Amarillo) Tex.	6.0	192	Joe Kerbel

TACKLES

John Bohn (Flaget) Louisville, Ky.	6.1	220	Paul Miller
Dave Dutton (Berkeley) Calif.	6.0	215	Fred Moffett
Mike Giacinto (St. Francis) Brooklyn, N. Y.	6.1	210	Vincent O'Connor
Robert Hoien (West Seattle) Wash.	6.3	220	Carl W. Ullin
Monte Kiffin (Lexington) Neb.	6.2	200	Merle E. Applebee
Harry Kushigian (Mt. Pleasant) Providence, R.I.	6.0	215	Irving Nelson
Tom Leechler (Robbinsdale) Minn.	6.2	235	Irv Nerdahl
Bob McCullough (Helena) Mont.	6.2	212	Nog Hansen
Sam Munsch (Rapid City) S. C.	6.2	180	Bud Davis
Ron Skufca (Benedictine) Cleveland, O.	6.4	245	Augie Bossu
David Steadman (Kingsport) Tenn.	6.2	200	Jim Hoggatt
Davidson Thompson (Male) Louisville, Ky.	6.1	195	Charley Kuhn
David Thompson (Brookline) Mass.	6.2	205	Harry Downes
Mike Woulfe (Mendel) Chicago, Ill.	5.11	200	Joe Magee

1957 All-American High School Football Squad

FOR the seventh consecutive year, *Scholastic Coach* presents its annual listing of schoolboy football stars worthy of the designation, All-American.

Quite naturally the project was started with some misgivings, but our past selections have passed the test of time—the overwhelming majority of them having gone on to fame in both the collegiate and pro ranks. Our initial selections in 1951 contained three boys who turned out to be pretty good pros—Earl Morrall, Bart Starr, and Tom Tracy—while our 1952 group sent Lamar Lundy and Milt Campbell into the pro ranks the past season.

From our recent Squads, you could put together a pretty fair squad of 30 to 40 outstanding grid-ders. It would include Alex Karras and Frank Rigney (Iowa), Bobby Oliver (Baylor), Ray Brown (Mississippi), Bobby Cox (Minnesota), Jim Ninowski (Michigan State), Lee Grosscup (Utah), Randy Duncan (Iowa), Don Allard (Boston College), Jackie Douglas (Stanford), Harvey White (Clemson), Walt Fondren (Texas), Bobby Hoppe and Tommy Lorino (Auburn), Aubrey Lewis and Nick Pietrosante (Notre Dame), John Crow and Dick Gay (Texas A. & M.), Jack Delveaux (Illinois), Billy Cannon (L.S.U.), and Don Hafer (North Carolina State).

The 1957 Squad possesses many worthy successors to the stars of past years. A good example would be Art Brandstatter of East Lansing, Mich. Art, an offensive end and defensive safety, has had his state agog for two years with his sensational play. In 1957 he caught 36 passes for 595 yards, returned 21 kicks for 505 yards, intercepted seven passes for 195 yards, and accounted for nine touchdowns. He also booted 17 of 24 extra points. That makes 71 points, and we haven't even gotten to the back-field!

Two other ends, Bob Livingston

and James Bates, both from the Los Angeles City League, scored 71 and 36 points, respectively, operating as devastating pass receivers on offense and halfbacks on defense. Other outstanding flankmen included Jim Blair of Albuquerque Highland (Tom McDonald's old school) who was also state hurdles champ in both highs and lows (14.5 over the highs); Ernie Davis of Elmira, N. Y., a back on offense but a great defensive wingman and a great basketball prospect; Bill Hicks, a three-year all-stater at Little Rock Central in Arkansas; and Henry Newton of Raleigh, N. C., who didn't get much chance to catch passes until the annual Shrine game between North and South Carolina all-stars. In that game, he set a new record with seven receptions.

Biggest of our tackles is Ron Skufca of Cleveland Benedictine, which wrested the unofficial Ohio championship from Massillon-Canton domination. Skufca was a great blocker who was voted the No. 1 offensive lineman in Ohio. Other noteworthy tackles include Mike Giacinto of St. Francis Prep (Brooklyn), who is one of the outstanding discus prospects in the country; two Louisvillians whom critics found almost impossible to separate—Davidson Thompson and John Bohm—and David Steadman of Kingsport, Tenn., who played just about anywhere on the team.

Among our guards we find Tom Downham of Marinette, Wisc., who was an all-city choice in Detroit in 1956 before moving to the Badger State; Gene Mariutto of Miami, who polled more votes than anyone (backs included) on Florida's all-state team, and stumpy Orville Bolinger of Muskogee, Okla., who shifted to fullback this season after two years at guard.

The ten centers on this year's squad were selected mainly for their rugged defensive work behind

the line, and we've included several boys who were backs on offense. Among them are John Bosley of little Green Bank, W. Va., brother of All-American Bruce; Jack Wallace of Middletown, Ohio's best defensive back; and Roger Whitley, a real pile-driver from Albemarle, N. C., who was best in the pressure games. The other seven were snappers-back on offense. The ten boys at this position average 212 pounds, with J. Lynn Smith of Bountiful, reported Utah's best pivotman in years, the lightest at 185.

The trend to the Split T has cut down somewhat on the passing statistics of our quarterbacks, but they can be measured on the deftness of their ball-handling, running, blocking, and field generalship. Larry Libertore of Miami Edison was reported to us at weights varying from 136 to 148 (we compromised and called him 142). But to the Lawrence, Mass., team which was swamped in a post-season game, Larry weighs a ton. He raced 122 yards on only six carries, completed three of five passes, and proved just too slick for the Bay Staters.

Leroy Loudermilk of Wilkesburg, Pa., was the same type quarterback but with a 40-pound edge on Libertore. Loudermilk was unstoppable as Wilkesburg won the Western Pennsylvania championship. Calm, collected, a great runner and passer and possessed of the leg drive of a halfback, Loudermilk had to be good to be rated ahead of his teammate, halfback Dan Donahue, who will make some college happy.

Most impressive passing statistics were amassed by the lone junior on our squad, Jerry Gross of Bay City, Mich. Jerry fired 135, completed 74 for a net gain of 1553 yards and 20 touchdowns. That's an average of over eleven yards every time he cocked his arm and 21 yards

NEW
EXCLUSIVE WILTON

Idento Stitch

TELLS SIZE AT A
GLANCE SAVES
LOCKER ROOM TIME!



FOOTBALL PRACTICE JERSEYS

A brand new innovation — EXCLUSIVE with Wilton — the company that's always there "fastest with the bestest" — for you!

New, colored "IDENTO-STITCH" front and back, at left and right, identifies size at a glance regardless of how jersey is folded.

At same time stitch serves to strengthen shoulder insert seams. Two ply, double carded, flat knit, tear resistant practice jerseys. Now NYLON REINFORCED. "Wilset" treated to resist shrinkage. Double elbows. In stock.

Send for catalog and prices

Mfrs. of SOFTBALL, BASKETBALL and TRACK Uniforms, FOOTBALL Jerseys, Warm-Up Suits, Reversible "T" Shirts, Tank Trunks and Men's Sportswear.

WILTON MFG. CO.
WARE, MASSACHUSETTS
Serving the Trade Better Since 1891

per completion. He added seven td's himself.

Ron Karlberg of a great Lewiston, Ida., team was known as "Radar Arm" because of his passing accuracy; and Guy (Sonny) Gibbs of Graham, Tex., tossed for over 2,000 yards (they play a longer season in Texas). Stan Gann of Atlanta Northside had less impressive statistics but seeing was believing. He was considered Georgia's top griddier—just a guy who did things right.

And we must add a word on Jim Bakken of Madison, Wisc., West. This blond quarterback could beat you many ways. He was strong, fast, resourceful and a splendid chucker to boot. Against Kenosha, the team West had to beat for its conference title, he ran 79 yards, passed for 110 (five for six in the first half), then capped an undefeated season against city rival, East, with 49 yards rushing and 167 in the air.

When we first saw the statistics on halfback Sedric Suggs of Rocky Mount, N. C., Booker T. Washington High, we were bug-eyed. Sedric gained 2535 yards from scrimmage in 12 games (211 per game) and had 28 touchdowns and 17 extra points. Seventeen of his scores came on runs of 25 yards or more, with one of 85 and one of 87. He becomes the first boy from a segregated school to make our squad, and we expect many more a la Jim Pace, J. C. Caroline, et al.

The 1957 squad features other halfbacks who were simply sensational. There's Jack Collins of Dallas Highland Park, the team that broke (?) Abilene's string—well at least they tied Abilene! Another Texan, Bob Nunis of Austin, barely got the nod over two teammates who made honorable mention. There's Bruce Fullerton of Little Rock's great—but really great—team, who's the state quarter-mile champion and set a school scoring record of 26 touchdowns. The old mark was held by John Hoffman (Chicago Bears), and Little Rock will play anybody!

We've included some other great scorers—Mark Chiros of Braintree, Mass., is the new Massachusetts scoring record holder with 187 points! Paul Goddard of Portland, Ore., broke the city record established by a fellow named Bobby Grayson—Stanford all-time great in case you're too young to remember; and Richie Haines of Montclair rates with Royce Flippin and Aubrey Lewis among the greats at that institution. Richie has a twin brother, Robert, who may go on to be a better college player, but for the season past Richie showed a little bit more, the difference probably being in quicker reactions.

Among our fullbacks, we must mention George Telesh of Clifton, N. J., a Polish boy who became an American citizen—and a fine one—during the season past. George was New Jersey's scoring leader in 1956, but just missed the title in 1957. But scoring meant little, for it was he who was mainly responsible for breaking Montclair's streak in November. In this game he had two 35-yard runs on consecutive plays to bring the ball out of the shadow of Clifton's goalpost, and later scored three touchdowns. George averaged better than 10 yards per carry from his fullback post and toted the ball no less than 272 times in eight games for 2747 yards. His two year record is phenomenal—492 carries, 4727 yards, 284 points in 17 games!

Our other fullbacks are no less impressive. Bobby Ferguson of Troy was considered Ohio's best back—a 202 pound steamroller who could also run like an express train; Jim "Turk" Bruno of Aga-

wam, Mass., who would have had the Massachusetts scoring record if it weren't for Chiros; John French, a big scorer from Artesia, N. M., and Jim Josephson of San Jose, Calif., Northern California's player-of-the-year.

California dominates our 1957 Squad with six players, while Texas and Massachusetts placed five. The latter state had an unusual number of fine players. Ohio with four follows. While Pennsylvania placed only two players, the college rosters of 1959 will doubtlessly list as many Keystone staters as in the past. We found 31 of them worthy of honorable mention.

Berkeley, Calif., and Little Rock were the only schools placing two boys on the list. Both had outstanding seasons.

***** * **HONORABLE MENTION** * * **48 STATES** * *****

ALABAMA—Tom Kelley (E) Birmingham Phillips; Travis Casey (T) Dothan; Myron Hawkins (C) Gadsden; Billy Neighbors (C) Tuscaloosa County. *Backs*—Bill Richardson, Walker County; Bob Sheridan, Bessemer; Pat Trammell, Scottsboro.

ARIZONA—Steve Vaughn (E) North Phoenix; Clay Freney (B) Globe; Richard Molina (B) Mesa.

ARKANSAS—Robert Johnston (T) Pine Bluff. *Backs*—Billy Moore, Little Rock; Ronnie Barris, Texarkana; Elmer Lindsey and Sonny Holmes, Forrest City.

CALIFORNIA—*Ends*—Toby Hecker, Muir of Pasadena; Dixon Burris, Oxnard; Stan Nelson, Claremont; Mack Burton, San Francisco Washington. *Tackles*—Frank Macari, North Hollywood; Calvert Fackrell, San Diego; Bob Brown, Chaffey of Ontario; Chet Rooters, Fresno Edison; Jim Smith, Long Beach Poly. *Guards*—Al Branco, San Leandro; Chuck Sajonia, Salinas; Neal Dahlen, Capuchino of San Bruno. *Centers*—Mike Rutz, Narbonne of Lomita; Hank Chamness, Willows. *Backs*—Alan Shields, Eagle Rock; Jim Ludwick, Huntington Park; Alvin Hamm, L. A. Fremont; Jim VanAken, Venice; Pete Yoder, Downey; Bob Bagwell, Montebello; Carmen DiPaolo, Monrovia; Dennis Ekimoto, Antelope Valley; Henry Enriguez, Mater Dei of Santa Ana; Harold Tobin, Coronado; Pete Olson, Albany; Tommy Harper, Encinal of Alameda; Cecil Mannings, Bakersfield; George Pierovich, Jackson; Dave Kilbourne, Cubberley of Palo Alto; Greg Stikes, Burlingame.

COLORADO—Leroy Inman (E) Grand Junction; Joe Romig (B) Lakewood; John Blatnick (B)

For that Extra ounce of Endurance!



Daily Nutritional Bonus!

One Ounce of Kretchmer's Wheat Germ
Supplies the Following Percentages of
Recommended Daily Dietary Allowances

NUTRIENT	MALE			
	age—10	16	25	45
Thiamine	38.0%	25.0%	30.0%	33.0%
Riboflavin	10.0%	7.5%	11.0%	11.0%
Niacin	9.5%	6.5%	7.5%	8.0%
Vitamin C	4.8%	3.6%	4.8%	4.8%
Vitamin B ₆	16.0%	16.0%	16.0%	18.0%
Protein	13.5%	9.3%	14.5%	14.5%
Iron	20.0%	16.0%	20.0%	20.0%
Phosphorus	19.0%	16.0%	28.0%	26.0%

Vitamin E. Wheat germ is the richest NATURAL source of Vitamin E.

Sodium. Wheat germ is low in sodium. For this reason, it is recommended as a source of good quality protein for persons on sodium-restricted diets.

NOTE: These Percentage Values are Slightly Higher for Girls and Women.

It's a scientifically accepted fact: an athlete's endurance—his energy to last—depends to a large extent on the efficiency with which his body utilizes carbohydrates—the energy foods. And strong evidence indicates that wheat derivatives—when consumed regularly—contribute greatly to this process.

Try adding Kretchmer's Wheat Germ to your training regimen—and check the results! Kretchmer's Wheat Germ is available through grocery stores—everywhere.

KRETCHMER wheat germ



Write for
"Suggested Ways of Feeding Wheat Germ
to Athletes in Training."
KRETCHMER WHEAT GERM CORPORATION
CARROLLTON 1, MICHIGAN

* Facts and figures above are based on
average of assays of Kretchmer's
Wheat Germ made by the (Univ. of
Wisconsin Alumni Research Foundation.

Naden ELECTRIC SCOREBOARDS

BASKETBALL

In this Model N-525 you get a lot of board for little money. 26" dial clock; 4" white scoring numerals; red bullseye period indicators; automatic horn. Write for details.

Ask for Free Catalog—1S—Basketball;
2S—Football; 3S—Baseball.



NADEN INDUSTRIES

Webster City, Iowa



For Trouble-free Protection
at Low Cost . . .

Master

NO. 1525

COMBINATION PADLOCK

- DURABLE
- KEY CONTROLLED
- STAINLESS STEEL CASE CONSTRUCTION

Master Combination Padlocks give you 2-way budget relief — low initial cost and long-lasting, trouble-free service! Double wall construction . . . hardened steel locking latch . . . automatic re-locking mechanism . . . and other security features.

Builders of the World Famous
Master Laminated Padlocks



MASTER NO. 1525
KEY CONTROLLED
2 YEAR GUARANTEE



MASTER NO. 1500
Same design and construction as No. 1525 . . . but without key control. Full two-year guarantee.

Master Padlocks

NO. 1 IN AMERICA'S SCHOOLS

Master Lock Company, Milwaukee 45, Wis.
World's Largest Padlock Manufacturers

TRACK AND FIELD MOVIES ON PAPER

By KEN DOHERTY, University of Pennsylvania

9 Charts 350 Drawings 800 Figures
of World Champions in Action!



- SPRINTS • SHOT • JAVELIN • HI JUMP
- HURDLES • VAULT • DISCUS • BROAD JUMP

plus 99 Strength-Flexibility Exercises
for All Sports

Set of 9 charts (one of each event), \$4.50

Any 10 charts, \$5.50 Any 25 charts, \$10

Send checks or School Purchase Order to

KEN DOHERTY, BOX 351, SWARTHMORE, PENNSYLVANIA

Greeley; Ron Leitch (B) Grand Junction.

CONNECTICUT—John Konefal (E) New Britain; Bob Vetrone (E) East Haven; Brian O'Connor (T) Notre Dame of West Haven; Curt Willoughby (B) Hillhouse of New Haven.

DELAWARE—Tom Hall (E) Salesianum; Bob Vignola (T) Rehoboth Beach; Anthony Bucci (B) Claymont.

D. C.—Dave Watkins (E) Anacostia; Joe Mona (E) St. John's.

FLORIDA—Lamar Peace (E) Lakeland; Art Norris (T) Pensacola; Wayne Tidwell (T) Marianna; Ed Taylor (T) Tampa Hillsborough; Bob McKenzie (B) Tampa Plant; Bill Williamson (B) Coral Gables. GEORGIA—Wyndall Black (T) Marietta; Ray Holt (C) Americus; John Flournoy (B) Columbus; Johnny Welch (B) Valdosta.

HAWAII—Reynold Freitas (E) Kaimuki; Milton Kam (B) Roosevelt.

IDAHO—Ron Farnsworth (E) Nampa; Del Hudson (T) Pocatello; Mike Stowe (B) Twin Falls.

ILLINOIS—Ends—Dick Burns, Rock Island Alleman; Jerry Luzinski, Chicago DePaul; Jim Pappas, Oak Park. Tackles—Jerry Rosengren, Leyden Twp. of Franklin Park; John Fauser, Peoria Woodruff. Guards—Chester Kamin, Evanston. Centers—Charles Rylander, Chicago Morgan Park; Tom Winiecki, Chicago Leo. Backs—Mel Romani, Washington; John Stamos, Chicago Lane Tech; Vic Pagel, Maine Twp. of Des Plaines; Gene Petty, Peoria Manual; Leroy Jackson, Bloom Twp. of Chicago Heights.

INDIANA—Tom Trainer (E) Evansville Reitz; Larry Coleman (T) Evansville Reitz. Backs—Bill Coleman, Evansville Reitz; Dean Eickstead, Hobart; Gene Phillips, South Bend Adams; Ron McCauley, Indianapolis Tech.

IOWA—Dick Brown (E) Davenport; John Kent (E) Clinton; Pat Clare (B) East Sioux City; Gary Lorenz (B) Clinton.

KANSAS—Jack Shutts (E) Meade; Mike Blaisdell (G) Topeka; Gil Wilson (B) Kansas City Wyandotte; John Hadl (B) Lawrence; Bill Williams (B) Wichita West; Noel Martin, Clay Center.

KENTUCKY—Mel Chandler (G) Corbin; Irv Goode (C) Boone County; Bobby Reeves (B) Louisville St. Xavier; James Hill (B) Fleming-Neon.

LOUISIANA—Mike Maloney (E) Shreveport Fair Park; Roy Winston (T) Istrouma of Baton Rouge; Duncan Savell (T) N. O. Warren Easton; Rupert Procell (G) Bossier City; Don Bossier (B) N. O. DeLaSalle; Tony Brocato (B) Ferriday; Don Smith (B) Istrouma.

MAINE—Paul Nelson (T) Skowhegan; Eddie Henderson (B) South Portland.

MARYLAND—Francis Grau (E) Baltimore Calvert Hall; Dalton Hillegas (B) Fort Hill of Cumber-

land; Ken Smith (B) Bethesda-Chevy Chase; Tom Brown (B) Montgomery Blair of Silver Spring; John Keehner (B) Baltimore City College.

MASSACHUSETTS—Ralph Larson (E) Quincy; Paul Connolly (E-T) Waltham; Bob Rubicine (T) Brockton; Tom Hennessey (B) Brookline; Ken Kezer (B) Waltham; Bill Carlyn (B) Swampscott.

MICHIGAN—Ends—Jim Schultz, Bay City Central; Ron Holmes, Detroit Cooley. Tackles—Walt Herrala, Muskegon Heights; Roger Weaver, Midland. Guards—Larry Brooks, Lansing Eastern; Gene McFadden, Flint Northern; Don Kawal, Redford St. Mary. Centers—Steve Stieler, Wyandotte Roosevelt; Dave Manders, Kingsford. Backs—Leroy Milner, Midland; Larry Hudak, Detroit Denby; Phil Gaines, Flint Northern; Bob Suci, Grand Blanc.

MINNESOTA—Ron Kerkvliet (T) Marshall Catholic; Tom Hecemovich (T) Greenway of Coleraine; Dennis Heeren (G) St. Paul Central; Roy Bostock (B) Edina; Jerry Ferguson (B) Minneapolis South; Robin Teller (B) Greenway; Steve Malnar (B) Red Wing.

MISSISSIPPI—Bill Williams (E) Petal; Harold Erickson (T) Biloxi; Hollis McCoy (G) Yazoo City; Lance Alworth (B) Brookhaven; Billy Horn (B) Meridian; Jim Harvard (B) Lucedale; Charles Furlow (B) Mendenhall.

MISSOURI—Larry Allen (E) Kansas City Central; Bob Bukowsky (E) Fredericktown; Terry McRoberts (T) St. Louis Cleaveland; Elvin Basham (G) North Kansas City; Jerry Hinchey (B) Poplar Bluff; Norman Beal (B) Normandy.

MONTANA—Ron Matteucci (T) Great Falls Catholic Central; Dick Seim (C) Missoula; Marco Stanisich (B) Butte; Tom Boone (B) Missoula.

NEBRASKA—Pat Salerno (E) Omaha Central; Howard Waterman (T) Omaha North; Ted Clements (G) Creighton Prep of Omaha; Jack Conger (B) Aurora; Larry Milton (B) Omaha South; Wilburn Hollis (B) Boys Town.

NEVADA—Steve Sullivan (T) Henderson; Grant Crutchley (G) Elko; Don Hampton (B) Las Vegas.

NEW HAMPSHIRE—Albert Briggs (E) Nashua; John DeCicco (B) Exeter; Kirby Flanagan (B) Spaulding of Rochester; Gary Palmer (B) Bradley of Manchester.

NEW JERSEY—Bob Fiorini (E) Barringer of Newark; Phil Parrish (T) Burlington; Emory Pudder (T) Freehold; Bob Stem (T) Phillipsburg; Robert Haines (B) Montclair; Phil Jackson (B) Millville; Julian Malinski (B) East Rutherford; Bobby Hayes (B) Union; Bob Lisa (B) Demarest of Hoboken.

NEW MEXICO—Bob Lehman (T) Carlsbad; Brian Copple (C) Roswell; Jim Mitchell (B) Artesia; Tom Dunn (B) Albuquerque Highland.

NEW YORK—Ends—Ron Shiesley, Tonawanda; Paul Costa, Port Ches-



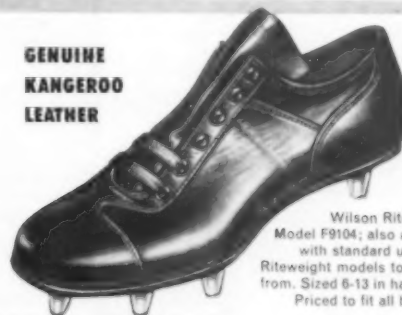
Wilson RITEWEIGHT SHOES

the Last word

Wilson's new last gives every player
SURE-FOOTED CONFIDENCE!

It took six years of testing and research to develop this shoe—and last year in actual play this period of development paid off. The Wilson Riteweight is the finest football shoe ever made. Lightest by actual test! And Flexibond construction adds flexibility and lightness. The sole is permanently attached to upper without stitching. No sole stitching to wear out. Note new nylon steel-tipped cleats. Redistributed and increased support means sure-footed confidence—better play. You'll see a difference!

GENUINE
KANGEROO
LEATHER



Wilson Riteweight,
Model F9104; also available
with standard upper. 12
Riteweight models to choose
from. Sized 6-13 in half sizes.
Priced to fit all budgets.

PLAN AHEAD,
ORDER EARLY

Win With **Wilson**

Wilson Sporting Goods Co., Chicago



Write for free information

LOU-PEL Mfg., 32 Monroe St., Waterford, Conn.

LOU-PEL

All metal SNAP-ON Basketball Nets. Guaranteed 3 yrs. Used outdoors or indoors. No instruction needed to install, just snap into loops.

Shuffleboard Sets. Full 6 in. discs with rubber BUMPERS. Tetherball sets, Deluxe paddles, balls.

DIXIE CLINIC

THE NATION'S NEWEST
FOOTBALL SCHOOL

at DUKE UNIVERSITY

March 17-19 Durham, N. C.

Featuring Four of the Top
Football Coaches in the Land

PAUL AMEN, Wake Forest
Atlantic Coast Conf. Coach of Year.

EARLE EDWARDS, No. Car. St.
Master of Wolfpack Multiple Offense

BILL MURRAY, Duke
Mentor of Orange Bowl Blue Devils

JIM TATUM, North Carolina
Fabulous Organizer and Builder

Football Coaching at Its Best!

Movies and live demonstrations by
squads from Carolina, Duke, N.C.
State, and Wake Forest. Banquet,
clinic notes, and excellent facilities.

**Tuition: \$10, members N.C.F.C.A.
\$15, non-members; \$25 college**

For registration or information, write

AL BUEHLER, Dixie Clinic Director
Dept. of Athletics, Duke University
Durham, N. C.

NEW, PORTABLE NON-ELECTRIC WHIRLPOOL BATH

Treat sprains, stiffness, sore
muscles and other conditions
requiring moist heat and mas-
sage. Set up in shower area
(illus.) or bath tub. Recom-
mended by coaches, trainers,
doctors. Unconditionally guar-
anteed.

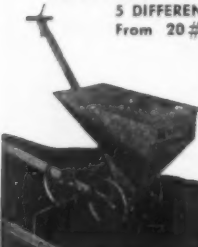
\$49.95 Complete
Postpaid

Write for literature
and our **FREE 10
DAY TRIAL PLAN**

LAUREN'S LABORATORIES
1801 Eutaw Place, Baltimore 17, Md.
Dept. SC

NEW AND IMPROVED RYAN'S H. & R. DRY LINE MARKERS

5 DIFFERENT MODELS
From 20 # to 100 # Capacity



Force Feed — Instant
Shutoff—100 lbs. ca-
pacity.

Shaker in Hopper for
Constant Flow.

Adjustable Control on
Handle.

**SAVES TIME AND
MATERIAL**

Send to Dept. S for booklet on four other models
H. & R. MFG. CO., LOS ANGELES 34, CALIF.

ter. **Tackles**—Reed Bohovich, St.
Joseph's of Buffalo; Jerry DeBalso,
Canistota; Joe Senus, Rome; Bob
Ward, Binghamton Central; Walt
Mongon, Rye. **Guards**—Dick Mora-
bito, East Rochester; Jay Welsh,
Rockville Centre; John Cutillo,
Amityville; **Centers**—Allen Fried,
Lincoln (N.Y.C.). **Backs**—Frank
Scarpino, Jamestown; Paul Stoldt,
Lancaster; Carl Bess, Emerson of
Buffalo; Dennis Slattery, Vincen-
tation of Albany; John Counts, New
Rochelle; David Hayes, Mepham;
Carl Harris, Riverhead; Ron Sera-
pilio, Draper; Hobie Armstrong,
Kingston.

NORTH CAROLINA—Joel Goodrich
(T) Fayetteville; Sam Loflin (T)
Salisbury; Sonny Kern (C) Dur-
ham; Von Taylor (C) Marion; Ro-
man Gabriel (B) Wilmington; Ray
Farris (B) Charlotte Myers Park.

NORTH DAKOTA—Bob Schaumberg
(E) Bismarck; Larry Danner (E)
Fargo; Phil Schneider (C) James-
town; Tom Cranna (B) Devils Lake.

OHIO—**Ends**—Clyde Childers, Massil-
lon; Les Traver, Alliance; George
Wittmer, Cincinnati Purcell. **Tack-
les**—Pete Williams, Dayton Chami-
nade; Carl Hilling, Akron Central;
Sandy Martin, Columbus East; Ron
Weldy, Piqua; Don Anderson, Lan-
caster. **Guards**—Gene Knight, New-
ark; Pete Kakela, Toledo Libbey;
Jerry Harbin, Marion Harding. **Cent-
ers**—Dave Owen, Northridge. **Backs**
—Tom King, East Cleveland Shaw;
Larry Baughman, Lancaster; John
Havlicek, Bridgeport; John Mum-
mey, Painesville Harvey; Ivory Ben-
jamin, Massillon; Dan Kwiatkowski,
Toledo DeVilbiss; Mervin Spencer,
Youngstown South; George Sefcik,
Cleveland Benedictine; Mel Sha-
piro, Toledo DeVilbiss.

OKLAHOMA—Henry Wells (T) Ada;
LeRoy Corn (T) El Reno; Ronald
Rowden (T) Cushing; Bill McKin-
ney (G) Bartlesville; Jerry Moon
(G) Lawton. **Backs**—Ronnie Dom-
bek, Henryetta; DeWayne Pitt, Ada;
Jim Dillard, Fairfax; Ronnie Mc-
Diarmid, Tulsa Rogers; Donald
Smith, Ardmore Douglass; Jerry
Thompson, Stillwater.

OREGON—Greg Willener (E) South
Eugene; Tim Bullard (T) Marsh-
field of Coos Bay; Jim Funston (G)
Medford; Terry Baker (B) Port-
land Jefferson; Mickey Sinnerud
(B) Beaverton; Steve Picard (B)
Seaside; Hardy Spurgeon (B)
Marshfield; Frank Hawley (B) Vale.

PENNSYLVANIA — **Ends** — Ollie
Payne, Charleroi; Russ Frantz, Cass
Twp.; Dave Rodman, Hanover; Jay
Huffman, Clairton; Charles Siemin-
ski, Swoyerville; Tom Wynne, St.
James of Chester. **Tackles**—Barry
Butzer, Lancaster; Lynn Drake, Ty-
rone; Bob Eastwood, Norristown;
Joe Hydock, Cass Twp.; Larry
Reaves, Braddock; **Guards**—Barry
Madill, Indiana; Bob Dungie, Potts-
ville; Rich Ruble, Lewistown; Larry
Vignali, Masontown. **Centers**—Ar-
lin Altimus, United Joint of Ar-
magh; Steve Fedorchak, Aliquippa;

Ed Weiheymayer, Penn Charter.
Backs — Joe Perkowski, Wilkes-
Barre Coughlin; John McFalls, Lan-
caster; John Yaccino, Hazleton; Lee
Fisher, Williamsport; Ron Hatcher,
Carnegie; Dan Donahue, Wilkins-
burg; Nolan Jones, New Kensing-
ton; Fred Galovich, Pittsburgh
North Catholic; Charles Speck,
Pittsburgh Langley; Paul Campbell,
Altoona; Sanford Stephens, Union-
town; Allen Brewster, Ridley Twp.;
Jim Pownall, Roxborough of Phila-
delphia.

RHODE ISLAND—Ralph Bello (T)
Providence Central; Ronald Eckert
(G) Newport Rogers; Phil Caito
(B) Mt. Pleasant; Robert Hyman
(B) Providence Central.

SOUTH CAROLINA—John Lomax
(T) Abbeville; Charles Overstreet
(G) North Augusta; Jack Veronee
(C) North Charleston; Larry Bayn-
ham (B) North Augusta; Wendall
Black (B) Saluda; Bobby Robinson
(B) Camden.

SOUTH DAKOTA—Terry Woodward
(E) Pierre; Harvey Naasz (T) Mo-
bridge; Bucky O'Connor (B) Stur-
gis; Chuck Costlow (B) Madison
Beadle; Bill Whisler (B) Yankton.

TENNESSEE—Claude Pearson (E)
Memphis Treadwell; Larry May-
hugh (E) Springfield; Bobby Lance
(C) Chattanooga Central; Jere Dis-
ney (B) Greeneville.

TEXAS—**Ends**—Jim Perry, Abilene;
Ronnie Payne, Breckenridge; James
Street, Nederland; Eddie Curtis,

NINTH ANNUAL

Nassau County Football Clinic

Hofstra College, Hempstead, N. Y.
Friday and Saturday, March 21-22

... FEATURING ...

FOREST EVASHEVSKI
Head Coach, University of Iowa

WARREN GIESE
Head Coach, South Carolina

AUBURN STAFF
Coaches of Nation's No. 1 Team

HOWDY MYERS
Head Coach, Hofstra College

HENRY PIRO
Asst. Coach, University of Iowa

plus Game movies of Iowa,
South Carolina and Hofstra

Tuition \$6

Sponsored by Nassau County
Football Coaches Association

for complete information, write

DAN MANTRONE
Valley Stream Central High School
Valley Stream, Long Island, N. Y.

DEMAND *SHOCKLESS* THIGH PADS AND GET THE BEST!

Coaches . . . remove that psychological fear of impact. Equip your squad with the finest, safest thigh pad available. It's confidence—built in! Protect your boys against painful Charley Horses. Demand the number one choice of top teams everywhere. "Shockless" air pads are used by most BIG TEN Schools and Service Teams. A few well known users include:

- ARMY
- U. OF ILLINOIS
- MICHIGAN U.
- DUKE U.
- OHIO STATE U.
- AND HUNDREDS OF HIGH SCHOOLS
- U. WISCONSIN
- COLUMBIA U.
- OKLAHOMA U.
- NOTRE DAME U.
- GEORGIA U.
- AND MOST PRO FOOTBALL CLUBS

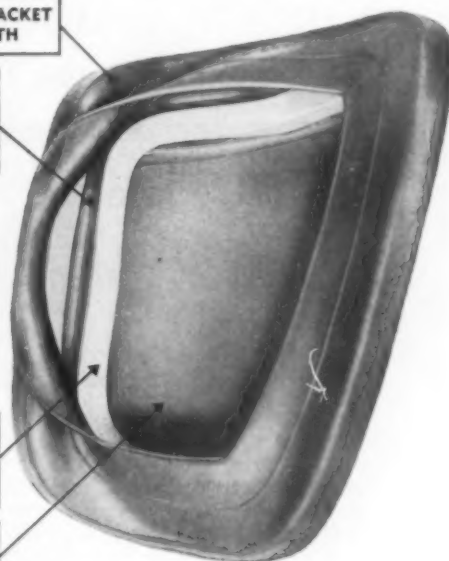
MOLDED RUBBER JACKET
TRIPLE STRENGTH

AIR FILLED PURE
GUM BLADDER.
FACTORY SEALED
PUNCTURE PROOF



DOUBLE CASING
OF NEW G209-C
SHOCKLESS
SPONGE

AIRSPONGE COVER
DOUBLE STRENGTH
.090 FIBRE



See your dealer or write direct for complete information.

AIR PAD AND BRACE COMPANY, 133 BUCKEYE ST., ELYRIA, OHIO

BUILD A WINNING TEAM WITH

DUDLEY

AMERICA'S BASEBALL AND TENNIS TRAINING MACHINE

AUTOMATIC BASEBALL PITCHING MACHINE

USED BY UNIVERSITIES, COLLEGES, SCHOOLS, MAJOR, MINOR AND LITTLE LEAGUES

CAN ALSO BE USED TO THROW SOFTBALLS, AND IS EXCELLENT
AS AN AUTOMATIC TENNIS TRAINER

WHICH MAKES IT

PRACTICAL FOR TRAINING IN PHYSICAL EDUCATION

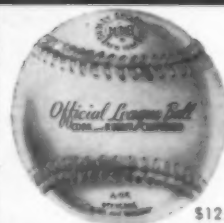
- PITCHES FROM REGULATION DISTANCE
- MAY BE OPERATED WITH REMOTE CONTROL
FROM BATTER'S BOX
- CHOICE OF TWO SPRINGS FOR A WIDER RANGE OF SPEEDS
- LIGHTWEIGHT CONSTRUCTION
- MASS TRAINING PRACTICAL
- INCREASES COACHING EFFICIENCY

Motion of the pitching arm is similar to the delivery of professional pitcher, assuring accuracy in the strike zone.

SIMPLICITY of construction puts maintenance at an absolute minimum.

HERE ARE A FEW OF THE HUNDREDS WHO ARE TRAINING WITH THE DUDLEY PITCHING MACHINE.

COLLEGES	YOUTH LEAGUES	MAJOR LEAGUES
UNIV. OF ILLINOIS	BRIMMINGHAM LITTLE LEAGUE	PITTSBURGH PIRATES
OHIO STATE UNIV.	HOUSTON BASEBALL LEAGUE	CINCINNATI REDS
UNIV. OF NORTH CAROLINA	BOYS TOWN, ILL.	CLEVELAND INDIANS
UNIV. OF KANSAS	PORTLAND LITTLE LEAGUE	
UNIV. OF WISCONSIN	CANAL ZONE LITTLE LEAGUE	
UNIV. OF MICHIGAN		
UNIV. OF MARYLAND		
UNIV. OF VIRGINIA		
UNIV. OF CONNECTICUT		
LOUISIANA UNIV.		
COLORADO STATE COL.		
LOUISIANA STATE UNIV.		
OREGON STATE UNIV.		



A9R

\$12.43 PER DOZ

RECOMMENDED for use with the
**DUDLEY AUTOMATIC
BASEBALL PITCHING MACHINE.**

DUDLEY SPORTS CO.

633 SECOND AVE. N. Y. 16,

WRITE FOR COMPLETE CATALOG SHEETS

ED HICKEY, FAMOUS ST. LOUIS U. Cage Coach, now using The Coachmaster



Coach Hickey, mentor of the famed St. Louis Billikens, had the following to say after seeing the Coachmaster demonstrated:*

"I was greatly impressed with the practical and real value to a coach that could be obtained by the use of a Coachmaster. It is more than novel; and a definite asset to any coach and squad both as a teaching aid and to correctly make available changing and immediate strategy during a game. I was impressed with its compactness and that it would be readily available for use both at home and away. Coaches—always striving for perfection—will have a new idea and mechanical device to head the way."

*Since making the above comments, St. Louis U. has purchased a Coachmaster and Coach Hickey is using it during all games.

Why don't YOU investigate the benefits you and your team can obtain from the Coachmaster? Write for detailed information today to

M. D. BROWN COMPANY 2215 LAKE ST. NILES, MICH.

Manufacturers of Scoremaster Basketball and Football Scoreboards

AMERICAN TRAMPOLINES— Superiority-Proved!



Superiority-Proved—
in Performance,
Quality and Value!

Only in American Trampolines do you get all this:

- Greater strength and rigidity, with American's dual-rail frame and exclusive, new triple-bridge legs.
- Officially approved—American Trampolines meet all AAU and intercollegiate specifications.
- Better bounce . . . longer, with American's triple-stitched nylon bed and superior suspension system.
- Highest recommendations—used and approved by leading professionals, as well as by schools and institutions everywhere.
- Better hinges—easier to fold, move and store.
- 100% money-back guarantee on material and workmanship.

THE AMERICAN TRAMPOLINE CO.

Manufacturers of the famous LARRY GRISWOLD BED

FREE

Write for new literature on American's "Collegian" Trampoline—9 x 15' frame with 6 x 12' nylon web bed; and the famous "All American"—10 x 17' frame with the big 7 x 14' bed.

Dept. 13
JEFFERSON, IOWA

Terrell; David Alexander, White Oak. Tackles—Dennis Wise, Corpus Christi Ray; Dickie Woods, Sweetwater; Bob Plummer, Seymour; Jerry Ferguson, Sundown; Wylie Hart, Glen Rose; Delbert Wiley, Ballinger. Guards—Mickey Walker, Port Arthur; Karl Milstead, Athens; Bob Manasco, Cleburne; Johnny Tombs, Georgetown; Bill Hardegree, Baytown. Centers—Charles Sulak, Fort Worth Paschal; Bobby Biehunko, LaVega; Travis Stewart, Boerne; Robert Rains, Dallas Crozier. Backs—Mike Cotten and Don Jester, Austin; David Allred, Wichita Falls; Bill Sides and Chuck Colvin, Abilene; Jesse McGuire, Plainview; Earl Burleson, Grand Prairie; Calvin Janner, Brenham; Tommy Jackson, Andrews; Charles Ortiz, Brady; Jimmy Keller, Terrell; Bob Caskey, Gonzales; Ronnie Bull, Bishop; Kenneth Knowles, Holliday.

UTAH—Merlin Olsen (T) Logan; Gordon Lee (B) Tooele; Jim Baxendale (C) Uintah; Elmer Richards (B) Carbon of Price.

VERMONT—Dick White (G) Montpelier; Mike Pearo (C) Springfield Cathedral; Ted Waryas (B) Bellows Falls; Ron Benzi (B) Brattleboro; Jim Nelson (B) St. Johnsbury.

VIRGINIA—Billy Robertson (E) Waynesboro; Gary Thompson (E) Grundy; Carlton Waskey (C) Roanoke Jefferson; Roger Hale (B) Hopewell; Milt Saffelle (B) Hammond of Alexandria; H. J. Rust (B) Norview of Norfolk.

WASHINGTON—Jerry William (E) Tacoma Lincoln; Ray Clevidence (T) Fort Vancouver; Doug Black (G) Wenatchee; Bob Ames (C) Central Valley; Jerry McDonald (C) West Bremerton; Mel Melin (B) Olympia; Norm Janke (B) Monroe. WEST VIRGINIA—Gerald Holbrook (G) Big Creek of War; Glenn Bennett (B) Hinton; David Shields (B) Alderson.

WISCONSIN—Dan Bentz (E) Racine St. Catherine; Tom Verkuilen (E) Appleton; Bob Wavro (G) Kenosha; Neil Nelson (B) Mondovi; Ralph Kubinski (B) Milwaukee Bay View; Tom Bonofiglio (B) Kenosha.

WYOMING—Ernie Trujillo (G) Casper; Eddie Kawano (B) Powell.

BOOK CHECKLISTS

CHECKLISTS of in-print books on conditioning, fencing, ice hockey, skating, skiing, squash, racquets, track and field, and wrestling are contained in the January issue of SportShelf News. A free copy is available from SportShelf News, P.O. Box 116, New York 33, N.Y. Enclose 10¢ to cover handling and mailing.

NEW BOOKS ON THE SPORT SHELF

- **THE SUCCESSFUL CAMP.** By Lewis C. Reimann. Pp. 233. Ann Arbor, Mich.: The U. of Michigan Press. \$4.75.

VIRTUALLY every aspect of camp administration from the selection of the site to the development of camper and staff morale is thoroughly and graphically discussed in this comprehensive handbook prepared by one of the nation's foremost camp administrators.

Besides detailing every administrative phase of camping, the book includes a Camp Director's Calendar embodying a month-by-month checklist of the year-round duties of the director and camp committee, and a supplement containing 11 forms helpful in camp administration which can be reproduced by any printer for camp use.

Both newcomers and experienced camp directors will find this an invaluable reference on all of the major aspects of professional leadership.

- **THE JUDO INSTRUCTOR.** By Captain M. G. Harvey. Pp. 120. Illustrated. New York: SportShelf. \$3.

THIS authoritative and complete guide to Judo has been designed especially for the beginner by Captain Harvey, who is a Black Belt of the Kodokan, Tokyo. However, the graphic text and the exceptionally clear drawings make it equally suitable for both advanced students and coaches.

SportShelf, the American distributor of the book, may be reached at P.O. Box 116, New York 33, N.Y.

NEW FILM

- **MORE THAN CHAMPIONS.** Produced by Fellowship of Christian Athletes. 16-mm. sound. Black and white. Running time, 22 minutes. Distributed by World Wide Pictures. Rental, \$8 per day (half-rate for additional consecutive days).

IN this exciting and inspirational film, such all-time athletic greats as Doak Walker, Carl Erskine, Bob Richards, and Branch Rickey are shown at the peak points of their careers, after which they lend personal witness to the power of God in their lives.

Produced by that superb inspirational force, the Fellowship of Christian Athletes, this unusual and powerful film also features play-by-play action shots of Otto Graham, Robin Roberts, Deacon Dan Towler, and Rafer Johnson. A fine narration is contributed by Tommy Harmon and Louis H. Evans, nationally known Church Leader.

For complete information on rentals and local shipping offices, write to World Wide Pictures, P.O. Box 1055, Sherman Oaks, Calif.

New DUROFIT Knit Nylon Stretch Football Uniform

- Gives a tight fit—makes player harder to tackle—increases speed
- Two jersey sizes—Medium and Extra Large—let you fit an entire squad
- Shells available in full range of sizes



GENERAL

football clothing

Place your order NOW . . .

with your sporting goods
dealer to insure delivery
during the Summer.



Look to GENERAL for leadership!
**The General Athletic Products
Company, Greenville, Ohio**

Fungi-Killing Cream a "Must" for Locker Room First-Aid!

INSTANT RELIEF FOR ATHLETE'S FOOT ITCH this "hospital-tested" way!

Amazing "hospital-tested" Ting Antiseptic Medicated Cream brings remarkable relief three ways: (1) Instantly relieves awful itching and soothes sore, burning skin! (2) On 60-second contact, destroys fungi that cause Athlete's Foot! Thus prevents spread of infection. (3) Aids

healing of cracked, peeling toes with incredible speed! Ting dries immediately to a soothing, antiseptic powder that clings to feet...giving blessed relief for hours! Easy to apply, greaseless, stainless. At all druggists. Only 79¢. Money back if not satisfied. ©1951 Pharma-Craft Co.

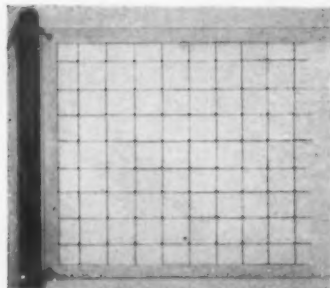
BIG NEWS IN NETTING FROM

GOLD MEDAL
INVINCIBLE

ANNOUNCING A NEW, IMPROVED

Linen Volleyball Net

Beats All Competition in Quality and Price



Note how the strings hold the net in tension.



"A Net for every purpose... a purpose for every net."

THE LINEN THREAD CO., INC.

418 GRAND STREET • PATERSON 12, N. J.

New York

Chicago

Boston

San Francisco

Baltimore

Tougher, Stretchfree, More Durable! — This new, standard, 32-foot volleyball net is made of fine linen seine twine, and combines linen's big advantages in a net that looks better, lasts longer. It's priced low, too — a more economical net in many ways. Offered in two styles by both of America's two leading lines of sports netting...

GOLD MEDAL Style #LD-3230-VBC (steel cable), and **#LD-3230-VB** (rope cable).

INVINCIBLE Style #LB-3230-VBC (steel cable), and **#LB-3230-VB** (rope cable).

See Your Nearest Dealer

880-Yard Relay

(Continued from page 24)

on each exchange by r-e-a-c-h-i-n-g. If we cut this time waste before and at the moment of exchange to a bare minimum, can we improve further?

The author believes this can be done and has been experimenting in this direction. Experimenting is probably not the correct term because of the many uncontrollable influencing factors that make it difficult to evaluate the importance of any one factor.

If the pick-up man accelerates his speed when he gets the baton, can we expect him to maintain his speed and run a faster 220? The author uses the ? because he isn't sure for endurance or other reasons whether a man going faster at the start of the moving 220 will slack off more in the middle of his distance and therefore, run the same or slower total time. It can only be said that, generally speaking, time gained at the beginning of any race is an advantage. The shorter the race, the more the advantage.

It's certainly an advantage to leave the zone at as high a rate of speed as possible if your opponent is close and you're going to fight for the pole position. For example, two boys are even when they get the baton, but at that instant one of them is going faster than the other. Obviously the one going faster, not necessarily the faster boy, will pass the other one in the next few yards and at least momentarily hold his advantage, perhaps long enough to get the pole position going around the curve.

The next question is how can we accelerate sooner?

The crouch start from blocks is the fastest way to proceed from a stationary position to full speed.

Theoretically, if our pick-up man can attain full speed more quickly, we can pass closer to the middle of the zone. This is because at the moment of pass we lose ground if the hand-off man is going faster than the pick-up man (and perhaps passes him or comes alongside). Therefore, to be efficient, the moment of hand-off must wait until the pick-up man is going faster—until he's closer to the end of the zone.

Timing is of the utmost importance during the exchange. We must, therefore, assume several things (which we have no right to assume, but must nonetheless). It must be assumed that the hand-off man will come in at the same speed with the same amount left every time. This can be made surer by encouraging the boys to run their 220 nearly all out rather than pacing it.

It must also be assumed that the pick-up man, no matter what type of start is used, will be able to judge when his teammate has passed the check-mark. The author encourages the boys to anticipate so that when the hand-off man hits the check-mark, the pick-up man is moving—there should be no time lag for reaction.

SAND KNIT

SCORES AGAIN!

**NEW! 100% STRETCH
NYLON RIBETT
FOOTBALL PANTS**

More progress from SAND KNIT! A new nylon material with 100% stretch qualities, made on our famous RIBETT-KNIT machines. An outstanding combination that assures skin-tight elasticity for full freedom of action. Available in two size groups for correct fit every time!

Group "A" Fits Sizes 28, 30, 32
Group "B" Fits Sizes 34, 36, 38

**SEE YOUR SAND KNIT DEALER OR
WRITE FOR ADDITIONAL INFORMATION!**

FREE on request! Complete catalog of athletic clothing.



SAND KNITTING MILLS CORP.

Exclusive Athletic Knitwear and Clothing
BERLIN, WISCONSIN



Any arrangement facilitating consistency will help. It must be assured that when the pick-up man starts he won't hesitate but take off at full speed as though he wanted to lose his teammate, not wait for him.

The boy in the crouch position is in better position to start but perhaps in a poorer position to judge when to start. He may, however, be in a better position to concentrate on his man and his lane.

It's suggested that the pick-up man get down in a kneeling position and look over his shoulder when his teammate is coming off the turn about 40-50 yards away. By experimentation, a check-mark can be located so that when the hand-off man passes that point the pick-up man can start sprinting.

We use a small amount of lime to mark that point more distinctly. This past year we started with check-marks at approximately 20 and 21 feet (varies with the individuals), but in the state meet used 16-17 feet. (Possible because the pick-up men had more confidence and the hand-off men more endurance.)

When the hand-off man is 10-15 yards away from the check-mark, the pick-up man goes into a get-set position looking between his legs at the white mark. (His legs need be only a few inches wider apart than usual.)

As his teammate passes the mark, the pick-up man rolls into his start as though he were running in the open 100. At 10-12 yards, he reaches back at approximately the same time that the hand-off man reaches forward and the exchange is made (we hope).

The author isn't 100% convinced that the crouch is the best and fastest start for the relay, but is sufficiently interested in its possibilities to have used it last spring and to want to experiment further this spring.

There are several things to be careful of: (1) pick-up man must have confidence in the man coming in, his speed consistency, and the check-mark as being the right distance; (2) the pick-up man must drive out as though starting the 100 or he'll lose all advantage of the fast start—he mustn't hold back anywhere.

The Berkeley relay team ran 1:27.2 at the Fresno relays with DeWitt at anchor going under 21.0 for the moving 220 and Cebon Russ, a fine hurdler-broad jumper, replacing Jackie Williams, the regular but injured No. 2 man.

In the state meet, the regular four-some ran 1:27.0. DeWitt, as noted before, had run a 47.9 quarter some 30 minutes before and therefore was switched to No. 1; he could go only 22.3. The author was understandably pleased with the winning performance, but as he looks back, can't help but be a little disappointed. Had DeWitt been able to run his fresh potential, the 1:25.9 record would have been approached or broken.

But, then, I don't think any of us are satisfied for long. Should we be? Not if we want our boys to be in contention next year!

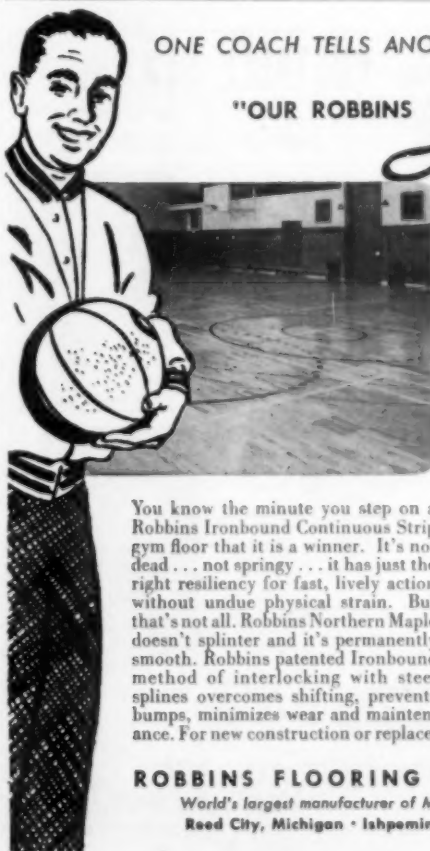


Silk Satin TRACK AWARD RIBBONS

- Lettered in **GOLD LEAF** in all places on finest quality silk satin ribbon.
- **FIVE COLORS** available for place winners: *Blue*—first place; *Red*—second place; *White*—third place; *Yellow*—fourth place; *Green*—fifth place.
- Official, Judge, Starter and Coach in Gold on White Ribbon.
- Ribbons contain Name of Meet, Year, Event and Winner's Place.
- All Events for Track, Swimming, Playground Meets and Literary Contests.

18¢ Per Ribbon Minimum Order \$3.60
We carry a complete line of Trophies and Medals
Write for further information.
Order direct. Not sold thru dealers.

The House of Harter GOSHEN, INDIANA
INDIANA'S LARGEST WHOLESALE SPORTING GOODS DISTRIBUTORS
42 HARTER BLDG., GOSHEN, INDIANA



ONE COACH TELLS ANOTHER . . .

"OUR ROBBINS

Ironbound

CONTINUOUS STRIP
MAPLE GYM FLOOR IS
THE BEST ATHLETIC
INVESTMENT
WE EVER MADE!"

And no wonder! Robbins Ironbound Continuous Strip floors combine every important gym floor quality:

- A better playing surface
- Permanent smoothness
- Years longer life
- Lower maintenance cost

You know the minute you step on a Robbins Ironbound Continuous Strip gym floor that it is a winner. It's not dead . . . not springy . . . it has just the right resiliency for fast, lively action without undue physical strain. But that's not all. Robbins Northern Maple doesn't splinter and it's permanently smooth. Robbins patented Ironbound method of interlocking with steel splines overcomes shifting, prevents bumps, minimizes wear and maintenance. For new construction or replace-

ment, Robbins Ironbound Continuous Strip is the finest gym floor you can have . . . yet it costs no more than ordinary floors.

For your protection Robbins Ironbound Continuous Strip flooring is sold only through authorized contractors. Write for details and name of nearest contractor. Dept. SC2, Reed City, Michigan.

ROBBINS FLOORING COMPANY

World's largest manufacturer of Maple Flooring
Reed City, Michigan • Ishpeming, Michigan



*T. M. Reg. U. S. Pat. Off.

BASEBALL'S TOP TEAMS USE maggie magnetic COACHING BOARDS



...with
chalkwriting
surface

SG-51: Portable Baseball Coaching Kit

Framed steel board, 18" x 24". Green chalkwriting surface with brown for cutaway portions of infield, and white markings. 24 plastic-covered magnetic pieces. Special packing carton serves as carrying case. Price complete \$14.95 (plus shipping-8 lbs.)

"The Maggie Magnetic Board has proved itself invaluable to us in illustrating various plays at our Dodgertown spring training camp . . ." Fresno Thompson, Vice President and Farm Director, Brooklyn Dodgers.

Depend on Baseball Pros to pick a pro coaching board. That's why major league teams—as well as schools and colleges—use Maggie Magnetic Coaching Kits to build winning teams. For Maggie Magnetic is designed by baseball men to speak baseball's language. Player pieces—all the tools needed for effective rapid demonstrations—are on magnets and move with fingertip ease to reduce diagramming. You show it better . . . the player sees it better with Maggie Magnetic.

Maggie Magnetic Diagram Boards for All Major Sports

Whether it's football, basketball, soccer or ice hockey, there is a "Maggie" board to fit your needs. Write for free literature.



maggie magnetic inc.

Originators of Magnetic Diagram Boards
39 West 32nd St., New York 1, N. Y.

The Latest in PORTABLE SEATING



USE IT INDOORS OR OUTDOORS

NEW MODEL 8FA

For baseball, football, hockey, basketball, reunions, field days, etc. Extra seating whenever, wherever you need it.



These Hussey portable steel stands with a front aisle combine extra comfort and improved appearance with guaranteed safety, quick easy portability, long life, and economy. Model 8 has more room between the rows—foot boards are wider and placed above the stringers, thus insuring easier access. The stands can be put up and taken down at the rate of 2.2 minutes per seat—no skilled help required. Available in 6, 10 and 15 tier 12 foot sections. For the best in portable seating, ask about the Hussey Model 8 FA (also available without front aisle).

Also ask about The New Hussey Economy Model 10.

Write for complete information and FREE catalog.

IRONWORKERS



SINCE 1835

HUSSEY MANUFACTURING CO., INC.

581 RAILROAD AVE.

NORTH BERWICK, MAINE

Also manufacturers of Roll-Out Gym Seats, Permanent Stands and Stadiums, Diving Boards, Floats, Piers, Steel Flag Poles, etc.

"Here Below"

(Continued from page 5)

first day of practice until a week before the opener—and it catapulted the club right into a top-ten rating!

At that, Bud isn't the Christopher Columbus of weight training in basketball. Bucky O'Connor installed a weight program at Iowa some years ago, and annexed a Big Ten crown the following season. He discovered that it improved jumping ability by 2.7 inches and strength from 15% to 25%!

The possibilities of weight training is even more wondrously exemplified by Steve Seymour, former javelin record holder. After retiring for several years, the 37-year-old osteopath decided to take another whirl at competition in 1957.

Having no time for practice, he decided to resort to an intensive program of weights. He did no running at all and put in just one day of throwing (the day before his first meet). Now get this: He competed in 26 meets, improving each time out, and wound up with a toss of 248'10"—the precise mark with which he set a national record ten years before!

Almost the exact parallel of this story is told by Paul Runyan, 1934 and '37 PGA champion. At the age of 49 last year, he bid adieu to his golfing career. With time on his hands, he decided to test an old theory that weight training would strengthen his forearms and allow him to hit a longer ball.

Six months later, he was driving the ball 20 yards farther than he ever had in his life!

Don Bowden, Uncle Sam's only 4-minute-miler, is now training with weights to build up his weight and strength and increase the capacity of his rib cage.

Weight training is also squarely responsible for the development of the new superboy of high school track, Dallas Long. A fine prospect as a junior, the North Phoenix (Ariz.) H. S. strongboy was put on a weight training "diet" last May—and the results were fantastic.

He began heaving the 12-lb. shot over 64', with a best mark of 65-2, and lobbed the 16-lb. ball 55-7—both marks smashing the existing schoolboy standards to smithereens. What's more, he began whirling the high school discus over 180'!

His coach, Vern Wolfe, expects him to smash every putting record in the book this season.

Vern, incidentally, is one Wolfe

who's howling a pretty tune these days. Practically every high school coach would be happy to settle for one superboy in his lifetime. But here's a coach who's had two in successive years! Last year it was Jim Brewer, the only schoolboy to vault 15', and this year it's Long.

Weight training is now making a pretty substantial contribution to our school activity programs, and Scholastic Coach is most happy to keep in step with the times. The article on pages 12-13 marks our third weight training piece of the year, and a real dandy it is.

HURDLE THE COST



ECONOMY TRACK EQUIPMENT

1824 Newark, S.E. Grand Rapids, Mich.

Economy • Versatility Ease of Handling

Specify MISHEK

- PORTABLE BLEACHER RISERS
- FOLDING CHAIRS
- BANQUET TABLES

Write for free catalog

MISHEK CO.
WASECA 1, MINNESOTA

OLSON TRACK AND FIELD SCORE CARDS

• You can't run your meets without an efficient system of recording results. This is the original recording and filing method in field.

• These cards are sold in sets. Each set consists of one card for each event plus a Summary Filing Folder for recording results and other pertinent data.

• Start a permanent record system by ordering a set for each of your meets.

90¢ per Set

CARL OLSON, Box 567, Patchogue, N.Y.

MASTER COUPON

To obtain free literature and sample goods, carefully check items desired and mail coupon directly to Scholastic Coach, Advertising Dept., 33 W. 42 St., New York 36, N. Y. Numbers in parentheses denote page on which the advertisement may be found.

AALCO MFG. (28)

- ☐ Catalog of Complete Sports Line

AIR PAD & BRACE (57)

- ☐ Information on Shockless Football Pads

ALUMINUM ATHLETIC (45)

- ☐ Brochure on Aluminum Hurdles, Vaulting Poles, Standards, and other Modern Track Equipment

AMERICAN TRAMPOLINE (58)

- ☐ Information on Line of Trampolines

AMERICAN WIRE (64)

- ☐ Folder on Locker Baskets and Uniform Hanger

AUDIO EQUIPMENT (40)

- ☐ Brochure on Electronic Megaphone

BENSON OPTICAL (48)

- ☐ Information on All-American Athletic Glasses

BERLIN CHAPMAN (18)

- ☐ Information on Pak-A-Way Golf Driving Range

BIKE WEB (32-33)

- ☐ Trainers Handbook See adv. for sample offer of Trainers Supplies

BILLARD BARBELL (29)

- ☐ See adv. for offer of free Weight Lifting Clinic

BROWN, M. D. (58)

- ☐ Catalog of Scoremaster Electric Scoreboards
- ☐ Information on Coachmaster Communication Device

CINE-O-TONE (44)

- ☐ Information on Speedy Film Processing

COSOM (15)

- ☐ Information on Safe-T-Play Game Equipment

CROWTHER, RAE (6)

- ☐ Details on Special Pay Plan
- ☐ Illustrated Brochure on 7-Man and 2-Man Charging Machines
- ☐ Film Showing Use of Crowther Machines

CYCLOTHERAPY (41)

- ☐ Catalog on Cyclo-Massage Equipment

DUDLEY SPORTS (57)

- ☐ Literature on Automatic Baseball Pitching Machine and APR Baseball

ECONOMY TRACK EQUIP. (63)

- ☐ Information on Steel Automatic Hurdle

FOOTBALL CLINICS (56)

- ☐ Complete information
- ☐ Dixie Clinic
- ☐ Nassau County

FREED-PRINT (44)

- ☐ Sample of Track Ribbon

GENERAL ATH. PROD. (59)

- ☐ Catalog on Football Uniforms

GENERAL SPORTCRAFT (2)

- ☐ Official Game Rules Booklet (free to Dept. Heads, 25¢ to others)

H. & R. MFG. (56)

- ☐ Booklet on Dry Line Markers

HARVARD TAB. TENNIS (31)

- ☐ Table Tennis Tourney Kit

HILLERICH & BRADSBY (Inside Back Cover)

- ☐ Catalog of Grand Slam Golf Clubs
- ☐ Louisville Slugger Catalog

- ☐ Softball Rules Booklet How many _____

HILLYARD CHEMICAL (4)

- ☐ Specification Sheet on Trophy Gym Finish

HODGMAN RUBBER (47)

- ☐ Catalog on Sideline Parkas, Hooded Capes, Warm-Up Jackets, etc.

HOUSE OF HARTER (61)

- ☐ Information on Silk-Satin Track Award Ribbons

HUNTINGTON LABS. (19, 24)

- ☐ 1957-58 Basketball Coaches Digest (free to coaches, 50¢ to others)

HUSSEY MFG. (62)

- ☐ Illustrated Seating Catalog

IVORY SYSTEM (Back Cover)

- ☐ Monthly Bulletin, "The Observer"

JAYFRO ATH. SUPPLY (44)

- ☐ Catalog on
- ☐ Steel Chain Nets
- ☐ Tetherball Sets
- ☐ Aluminum Standards
- ☐ Nylon Basketball Nets and Ball Carriers

K. & P. ATHLETIC (40)

- ☐ Information on Dowmetal Crossbars

KING-O-SHEA (42)

- ☐ Catalog on Custom-Built Athletic Uniforms

KRETSCHMER (53)

- ☐ Suggested Ways of Feeding Wheat Germ to Athletes in Training

LAURENS LABS. (56)

- ☐ Literature on Portable, Non-Electric Whirlpool Bath

LINEN THREAD (60)

- ☐ Catalog of Quality Nets for All Sports

LOU-PEL (55)

- ☐ Information on Metal Snap-On Basketball Nets

MAGGIE MAGNETIC (62)

- ☐ Literature on Magnetic Diagram Boards

MASTER LOCK (54)

- ☐ Catalog of Combination Key-Controlled Padlocks

MISHEK (63)

- ☐ Catalog of Portable Bleacher Risers, Folding Chairs, Banquet Tables

NADEN (53)

- ☐ Electric Scoreboards and Timers

- ☐ Baseball Catalog
- ☐ Basketball Catalog
- ☐ Football Catalog

NATIONAL SPORTS (18)

- ☐ Price Circular on Jim-Flex Gym Mats
- ☐ Circular on Floor and Wall Mats and Covers, Baseball Bases

NISSAN TRAMPOLINE (37)

- ☐ 12 Lesson Plans

OCEAN POOL (49)

- ☐ Catalog on Swim and Pool Equipment

OHIO ATH. SPECIALTY (49)

- ☐ Information on Football Speed Cleat
- ☐ Information on Football Face Bar

OLSON, CARL (63)

- ☐ Information on Track and Field Score Cards

PECSOLITE EQUIP. (48)

- ☐ Brochure on Pecsolite Fibreless Football Gear

PENNA. ATH. PROD. (46)

- ☐ Literature on Super-Strong Multi-Ply Basketballs

SEE PAGE 64 FOR OTHER LISTINGS AND FORM FOR SIGNATURE

**The Greatest Pole Vaulting
Aid in the World . . . Now
Being Used in 40 Countries!**

MECHANICS OF THE POLE VAULT

(THIRD EDITION)

By Dr. Richard V. Ganslen
Former National Vaulting Champion

- A 50,000 word treatise completely covering every detail of the event, especially prepared for coaches and vaulters.
- Profusely illustrated with action strips of Gutowski, Richards, Bragg, Morris, Laz, Warmerdam, Poucher and others.
- Includes comprehensive tables, conditioning exercises, basic laws of mechanics, questionnaires of the world champions, and drawings.

Order direct—\$1.25

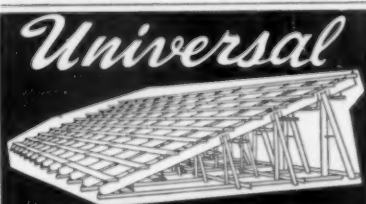
DR. RICHARD V. GANSLER
U. of Arkansas, Fayetteville, Ark.

LOCKER BASKETS AND SPACE SAVING UNIFORM HANGERS



All welded steel wire. Molten Metal dipped (tin alloy) after fabrication to insure maximum corrosion resistance. Available in sizes to meet your locker room needs. Write for descriptive literature and school prices.

**AMERICAN
WIRE FORM CORP.**
267-273 Grant Ave.
Jersey City, New Jersey



Portable Wood and Steel Bleachers

FREE CATALOG

UNIVERSAL BLEACHER CO.
Champaign, Illinois

ADVERTISERS INDEX

AALCO MANUFACTURING COMPANY	28
AIR PAD & BRACE COMPANY	57
ALUMINUM ATHLETIC EQUIPMENT COMPANY	45
AMERICAN TRAMPOLINE COMPANY	58
AMERICAN WIRE FORM CORPORATION	64
AUDIO EQUIPMENT COMPANY, INC.	40
BENSON OPTICAL COMPANY	48
BERLIN CHAPMAN COMPANY	18
BIKE WEB COMPANY	32-33
BILLARD BARBELL COMPANY	29
BROWN, M. D., COMPANY	58
CINE-O-TONE	44
CONVERSE RUBBER COMPANY	21
COSOM INDUSTRIES, INC.	15
CROWTHER, RAE, COMPANY	6
CYCLO THERAPY, INC.	41
DIXIE CLINIC	56
DOHERTY, KEN	54
DUDLEY SPORTS COMPANY	57
ECONOMY TRACK EQUIPMENT COMPANY	63
FREED-PRINT	44
GENERAL ATHLETIC PRODUCTS COMPANY	59
GENERAL SPORTCRAFT COMPANY	2
GANSLER, RICHARD V.	64
H. & R. MANUFACTURING COMPANY	56
HARVARD TABLE TENNIS COMPANY	31
HILLERICH & BRADSBY COMPANY, INC. 3d Cover	
HILLYARD CHEMICAL COMPANY	4
HODGMAN RUBBER COMPANY	47
HOUSE OF HARTER	61
HUNTINGTON LABORATORIES, INC.	19, 24
HUSSEY MANUFACTURING COMPANY	62
IVORY SYSTEM	4th Cover
JAYFRO ATHLETIC SUPPLY COMPANY	44
K. & P. ATHLETIC COMPANY	40
KING-O-SHEA	42
KNETSCHMER CORPORATION	53
LAURENS LABORATORIES	56
LINEN THREAD COMPANY, INC.	60
LOU-PEL MANUFACTURING	55
MacGREGOR COMPANY, THE	1
MAGGIE MAGNETIC, INC.	62
MASTER LOCK COMPANY	54
MISHEK COMPANY	63
NADEN INDUSTRIES	53
NASSAU COUNTY FOOTBALL CLINIC	56
NATIONAL SPORTS COMPANY	18
NISSEN TRAMPOLINE COMPANY	37
OCEAN POOL SUPPLY COMPANY	49
OHIO ATHLETIC SPECIALTY COMPANY	49
OLSON, CARL	63
PECSOLITE EQUIPMENT COMPANY	48
PENNSYLVANIA ATH. PRODUCTS DIV. OF THE GENERAL TIRE & RUBBER COMPANY	46
PHARMA-CRAFT COMPANY	59
PRECISION ATHLETIC GOGGLE COMPANY	28
PROTECTION EQUIPMENT COMPANY	45
RAWLINGS SPORTING GOODS COMPANY	3
RIDDELL, JOHN T., INC.	2nd Cover
ROBBINS FLOORING COMPANY	61
SAFWAY STEEL PRODUCTS, INC.	35
SAND KNITTING MILLS CORPORATION	60
SPALDING, A. G., & BROS.	39
SPANJIAN SPORTSWEAR	27
TRAVELRAIN POWER SPRINKLER COMPANY	40
UniMAC COMPANY	43
UNIVERSAL BLEACHER COMPANY	64
WILSON SPORTING GOODS COMPANY	17, 25, 55
WILTON MANUFACTURING COMPANY	52
WYATT'S PLASTICS, INC.	23
YORK BARBELL COMPANY	24

MASTER COUPON

(See page 63 for other listings)
(Numbers in parentheses denote page
on which advertisement may be found)

PHARMA-CRAFT (59)

- ☐ Information on Ting
Medicated Cream for
Athlete's Foot

PRECISION GOGGLE (28)

- ☐ Brochure on Prescription
Basketball Glasses

PROTECTION EQUIP. (45)

- ☐ Information on Polvanite
Football Pads
☐ Information on Ensolite
Gym and Wrestling Mats

RAWLINGS (3)

- ☐ New Intramural Hand-
book
☐ Football Catalog

RIDDELL, JOHN T.

- (Inside Front Cover)
☐ Information on Quality
Line of Football Equip.
With New Tubular
Face Guard

ROBBINS FLOORING (61)

- ☐ Information on Iron-
bound Continuous Strip
Maple Gym Floors

SAFWAY STEEL (35)

- ☐ Catalog on Telescoping
Gym Seats and Steel
Bleachers

SAND KNITTING (60)

- ☐ Complete Catalog of
Athletic Clothing

SPALDING & BROS. (39)

- ☐ Catalog
☐ SPANJIAN (27)
☐ 1958 Football Catalog

TRAVELRAIN (40)

- ☐ Literature on Automatic
Power Sprinkler

UniMAC (43)

- ☐ Information on School
Laundry Equipment

UNIVERSAL BLEACHER (64)

- ☐ Catalog of Portable
Wood and Steel
Bleachers

WILSON (17, 25, 55)

- ☐ Catalog

WILTON (52)

- ☐ Catalog on Uniforms
for All Sports

WYATT'S PLASTICS (23)

- ☐ Sample of Steel-Tip
Rubber Cleats

YORK BARBELL (24)

- ☐ Catalog of Barbell
Equipment
☐ Free copy of "Strength
and Health" magazine

NAME _____ POSITION _____
(Principal, coach, athletic director, physical director)

SCHOOL _____ ENROLLMENT _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

No coupon honored unless position is stated February, 1958

1957 World Series Movies FREE for Your Use

See the 1957 World Series right in your own school! It's better than a box seat. Nothing is left out. All of the dramatic action unfolds just as it happened last fall in Yankee and County Stadiums. Students and faculty alike are sure to appreciate viewing this greatest of American sport spectacles . . . and it's yours free of charge—all you pay is the postage.



AL SCHOENDIENST



HANK AARON



YOGI BERRA



ED MATHEWS

See These Series Heroes In Action Again

Yes, you will see all the Series heroes making history. You'll see, too, the famous "home run" game, the hectic finish of the sixth game and the climactic third inning of the final game. The film is 16 mm and can be used only on a sound projector. Be sure and make your request early.

HOW TO ORDER

See your sporting goods dealer to order the film. Advise him of the most suitable date, but mention two alternate dates, either of which would be satisfactory in the event the date preferred is not open. The demand is great so act at once. See your dealer!

Write for your free Louisville Slugger and Grand Slam Catalogs. Both are beautifully produced in full color and contain detailed information on both of these famous lines of athletic equipment. Dept. SC-8.



HILLERICH & BRADSBY CO., LOUISVILLE, KY.



IVORY SYSTEM SERVICE



Guarantees . . .

★ **EXPERT RECONDITIONING**

SOLE DISTRIBUTORS
of

IVOR-SAN

Offers positive protection
against athlete's foot in shoes
and locker room

DAWHIDE

Longest wearing and toughest
lacing material ever made for
athletic shoes

★ **COMPLETE PROTECTION**

★ **PERSONAL ATTENTION**

AMERICA'S OLDEST and LARGEST
RECONDITIONERS of ATHLETIC EQUIPMENT

The **IVORY SYSTEM** *inc.*

PEABODY

MASSACHUSETTS